Missouri Department of Natural Resources
Air Pollution Control Program
2026 Monitoring Network Plan
July 1, 2026
Revision 1

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Summary of Proposed and Recent Changes

The Missouri Department of Natural Resources operates an extensive network of ambient air monitors. Missouri's Monitoring Network Plan describes the network and discusses proposed and recent changes. The changes are summarized below.

Proposed Changes

1. The department plans to place a 1405-F $PM_{2.5}$ monitor at the Mark Twain State Park monitoring site for background $PM_{2.5}$ levels for permit modeling projects and regional episode analyses. The monitor will be classified as a special purpose monitor. If approved, the 1405-F will be discontinued at Branch St. to use at Mark Twain State Park.
2. The department is in the process of proposing an SO_2 maintenance plan revision. The current draft includes removing the Mott St. (AQS ID 29-099-0027) SO_2 monitor for the purpose of continued attainment verification in the maintenance area. If the department proceeds and submits the revision as currently drafted and the United States Environmental Protection Agency (EPA) approves, the department will submit a request to the EPA Region 7 administrator to discontinue monitoring at that site.
3. On March 25, 2026 the department sent a letter to the Regional Administrator asking for a Siting Criteria Waiver for two of Doe Run's Pb samplers that fall outside the collocation distance requirements set out in 40 CFR Part 58 Appendix A.3.4.4.2(b) to the MoDNR Primary monitor. The criteria waiver request can be found in Appendix 2 of this letter. EPA approved the waiver request on June 17, 2026. The department has since certified the combined 2024 and 2025 lead data and is awaiting EPA concurrence. The department will continue dialogue with EPA and Doe Run on how to manage future Lead (Pb) data combinations at the Buick NE site.
4. The department plans to begin implementing an air sensor loan program beginning in Summer of 2026. The department plans to install these sensors on state, county, or local government properties.
5. The department relies almost exclusively on ozone instruments that operate with a UV Photometer. A recent study observed the UV photometric Ozone measurement method contained a significant artifact under wildfire smoke conditions. The department plans to replace the secondary ozone monitors at West Alton and Rocky Creek with a different ozone measurement method to investigate the impacts of smoke on Ozone measurements.
6. Currently every ozone SLAMS monitor has a secondary instrument, which is not required by regulation. The department plans to explore the discontinuation of secondary ozone monitoring at sites across the state.

Changes since the 2025 Monitoring Network Plan

1. The department started monitoring air toxics in Kansas City at the Troost monitoring site (AQS ID 29-095-0034) in July 2025.
2. The department discontinued Pb monitoring at the Sherman site (AQS ID 29-099-0013) in December 2025.
3. The department installed an aethalometer at the Troost monitoring site (AQS ID 29-095-0034) in June of 2025.

4. The IMPROVE monitoring at the Mingo Wildlife Refuge is currently offline due to tornado damage that occurred in 2025. The United States Fish and Wildlife Service have reconnected electric service and UC Davis has set up and calibrated instrumentation. The expected date for resuming sampling activities is June of 2026.
5. Doe Run discontinued Pb monitoring at the Herculaneum City Hall/Mott St. (AQS ID 29-099-0020), Herculaneum Dunklin High School (AQS ID 29-099-9002), and Herculaneum North Cross (AQS ID 29-099-0023) site in September 2025.
6. The department ended the non-regulatory air sensor comparison sampling and is currently working on drafting a final report summarizing the findings.

How to Make Public Comments Concerning this Plan

The department posted Revision 0 of the 2026 Monitoring Network Plan on the web for public review and comment on May 28, 2026. The department accepted comments concerning the plan electronically at cleanair@dnr.mo.gov, or by mail to the following address:

Missouri Department of Natural Resources
Air Pollution Control Program
Air Quality Analysis Section/Air Monitoring Unit
PO Box 176
Jefferson City MO 65102

The department included comments received through June 27, 2026, and the responses to those comments in Appendix 3 of the final version of the plan (Revision 1). Additionally, the department has identified corrections and changes to the plan in Appendix 3.

Introduction

The department operates an extensive network of ambient air monitors to comply with the Clean Air Act and its amendments. The Ambient Air Quality Monitoring Network for Missouri includes State and Local Air Monitoring Stations (SLAMS), special purpose monitors (SPMs) and an NCore monitoring site consistent with requirements in federal regulation in 40 C.F.R. § 58.

40 C.F.R. § 58.10 requires states to submit an annual monitoring network plan to EPA, including any proposed network changes. In accordance with 40 C.F.R. § 58.10, Missouri must include in the plan a statement of whether the operation of each monitor meets the requirements of appendices A, B, C, D and E of 40 C.F.R. § 58, where applicable. With the exception of the lead monitoring at Doe Run's South #1 (AQS Site ID 29-093-0016) and Doe Run's North #5 (AQS ID 29-093-0021), all monitors in the Missouri air monitoring network, including those operated by the state and industries under state review, meet the applicable requirements of 40 C.F.R. § 58. The reason Doe Run's South #1 and North #5 sites do not meet the requirements is because the sites are non-ambient. Any changes to the SLAMS require approval by the EPA Regional Administrator.

The plan must contain the following information for each monitoring station in the network; (See Appendix 1 and the body of this document):

1. *The AQS site identification number.*
2. *The location, including street address and geographical coordinates.*
3. *The sampling and analysis method(s) for each measured parameter.*
4. *The operating schedules for each monitor.*
5. *Any proposals to remove or move a monitoring station within a period of 18 months following plan submittal.*
6. *The monitoring objective and spatial scale of representativeness for each monitor as defined in appendix D to this part.*
7. *The identification of any sites that are suitable and sites that are not suitable for comparison against the annual $PM_{2.5}$ NAAQS as described in § 58.30.*
8. *The MSA, CBSA, CSA or other area represented by the monitor.*
9. *The designation of any Pb monitors as either source-oriented or non-source-oriented according to Appendix D to 40 CFR part 58.*
10. *Any monitors for which a waiver has been requested or granted by the EPA Regional Administrator as allowed for under appendix D or appendix E to this part. For those monitors where a waiver has been approved, the annual monitoring network plan shall include the date the waiver was approved.*
11. *Any source-oriented or non-source-oriented site for which a waiver has been requested or granted by the EPA Regional Administrator for the use of Pb-PM_{10} monitoring in lieu of Pb-TSP monitoring as allowed for under paragraph 2.10 of Appendix C to 40 CFR part 58.*

12. *The identification of required NO_2 monitors as near-road, area-wide, or vulnerable and susceptible population monitors in accordance with Appendix D, section 4.3 of this part.*
13. *The identification of any $PM_{2.5}$ FEMs used in the monitoring agency's network where the data are not of sufficient quality such that data are not to be compared to the national ambient air quality standards (NAAQS). For required SLAMS where the agency identifies that the $PM_{2.5}$ Class III FEM does not produce data of sufficient quality for comparison to the NAAQS, the monitoring agency must ensure that an operating FRM or filter-based FEM meeting the sample frequency requirements described in § 58.12 or other Class III $PM_{2.5}$ FEM with data of sufficient quality is operating and reporting data to meet the network design criteria described in appendix D to this part.*
14. *The identification of any site(s) intended to address being sited in an at-risk community where there are anticipated effects from sources in the area as required in section 4.7.1(b)(3) of appendix D to this part. An initial approach to the question of whether any new or moved sites are needed and to identify the communities in which they intend to add monitoring for meeting the requirement in this paragraph (b)(14), if applicable, shall be submitted in accordance with the requirements of section 4.7.1(b)(3) of appendix D to this part, which includes submission to the EPA Regional Administrator no later than July 1, 2024. Specifics on the resulting proposed new or moved sites for $PM_{2.5}$ network design to address at-risk communities, if applicable, would need to be detailed in annual monitoring network plans due to each applicable EPA Regional office no later than July 1, 2025. The plan shall provide for any required sites to be operational no later than 24 months from date of approval of a plan or January 1, 2027, whichever comes first.*

EPA requires a network assessment every five years. The department submitted a Network Assessment along with the 2025 Annual Monitoring Network Plan last year.

Network Design

Federal regulation 40 C.F.R. § 58 establishes the design criteria for the ambient air monitoring network. The state must design the network to meet three general objectives:

1. Provide air pollution data to the public in a timely manner.
2. Ensure ambient air quality standards and emissions strategy development compliance.
3. Support air pollution research studies.

Specific objectives for the monitoring sites are:

1. Determine the highest pollution concentrations in an area.
2. Measure typical concentrations in areas of high population density.
3. Determine the impact of significant sources or source categories.
4. Determine general background levels.
5. Determine the extent of regional pollutant transport among populated areas.

Minimum site requirements, based on core-based statistical area (CBSA) population, are provided for ozone (O_3), sulfur dioxide (SO_2), carbon monoxide (CO), nitrogen dioxide (NO_2), airborne particulate matter with aerodynamic diameter equal to or smaller than 10 micrometers (PM_{10}) and airborne particulate matter with aerodynamic diameter equal to or smaller than 2.5 micrometers ($PM_{2.5}$).

40 C.F.R. § 58 Appendix E establishes the specific requirements for monitor/probe siting to ensure the ambient data represents the stated objectives and spatial scale. The requirements are pollutant/scale specific. Periodically, department staff visit and evaluate each monitoring site to ensure compliance with the requirements of 40 C.F.R. § 58 Appendix E. Additional details concerning the sites are available in Appendix 1.

Unanticipated Network Modifications

Changes to the monitoring network may occur outside the annual monitoring network planning process due to unforeseen circumstances including, but not limited to, severe weather, natural events, changes in property ownership, changes in federal funding, or changes in funding available from air emission fees from industrial facilities. The department will communicate any changes to the network that result from conditions outside the state's logistical control and not included in the current monitoring network plan to EPA Region 7 staff and identify such changes in the subsequent annual monitoring network plan.

Special Purpose Monitors

A monitor is designated as an SPM consistent with the regulatory definition in 40 C.F.R. § 58.20 (a): *"An SPM is defined as any monitor included in an agency's monitoring network that the agency has designated as a special purpose monitor in its annual monitoring network plan and in AQS, and which the agency does not count when showing compliance with the minimum requirements of this subpart for the number and siting of monitors of various types."*

SPMs may be established for many different purposes, including but not limited to NAAQS compliance evaluation, air quality research and characterization, air quality investigation and monitoring method evaluation.

The department includes SPMs in the annual monitoring network plan required by 40 C.F.R. § 58.10. The department installs or approves the installation of these monitors consistent with 40 C.F.R. § 58.20 (f). The department removes, or allows the removal of, these monitors following federal guidelines, which are different for SPMs than for SLAMS. There is more description of each SPM later in the document. The Missouri Monitoring Network Description, Appendix 1, specifies SPM sites and SLAMS sites.

Industrial Monitors

Ambient air monitoring sites classified as Industrial, in this document, indicate sites the industrial source or its contractor operates under an approved industrial monitoring Quality Assurance Project Plan (QAPP) and departmental Quality Management Plan (QMP). Department staff conduct quality assurance audits of these monitoring sites consistent with the approved QAPP.

Missouri oversees ambient air monitoring sites operated by industrial sources for NAAQS compliance. The department has incorporated these industrial sites in the annual Monitoring Network Plan and the ambient air monitoring network. Currently, lead and SO_2 industrial sites are in the Missouri monitoring network.

Some industrial lead monitoring sites are classified in the EPA Air Quality System (AQS) as non-regulatory due to the sites transitioning to non-ambient status. However, the department has required continued monitoring at these locations in agreements with the industrial source for trends analysis or other purposes.

Waivers

As required by 40 C.F.R. § 58.10(b)(10), the table below indicates site names, AQS identification numbers, reason(s) needed, and if applicable, the approval date of any site waivers. As required by 40 C.F.R. § 58 Appendix E, waivers are required to be renewed as a part of the 5-year network assessment. Waivers that require renewal are being submitted with the final plan and assessment to EPA.

Table 1: Approved Siting Criteria Waivers

Site	AQS ID	Criteria Waived	Waiver Approval Initial Date	Waiver Approval Most Recent Date
Buick NE	29-093-0034	Collocation Distance	June 2026	June 2026
El Dorado Springs	29-039-0001	Roadway Distance	December 2000	December 2025
Blair Street	29-510-0085	Roadway Distance	December 2000	December 2025

Figure 1: Missouri State Monitoring Network

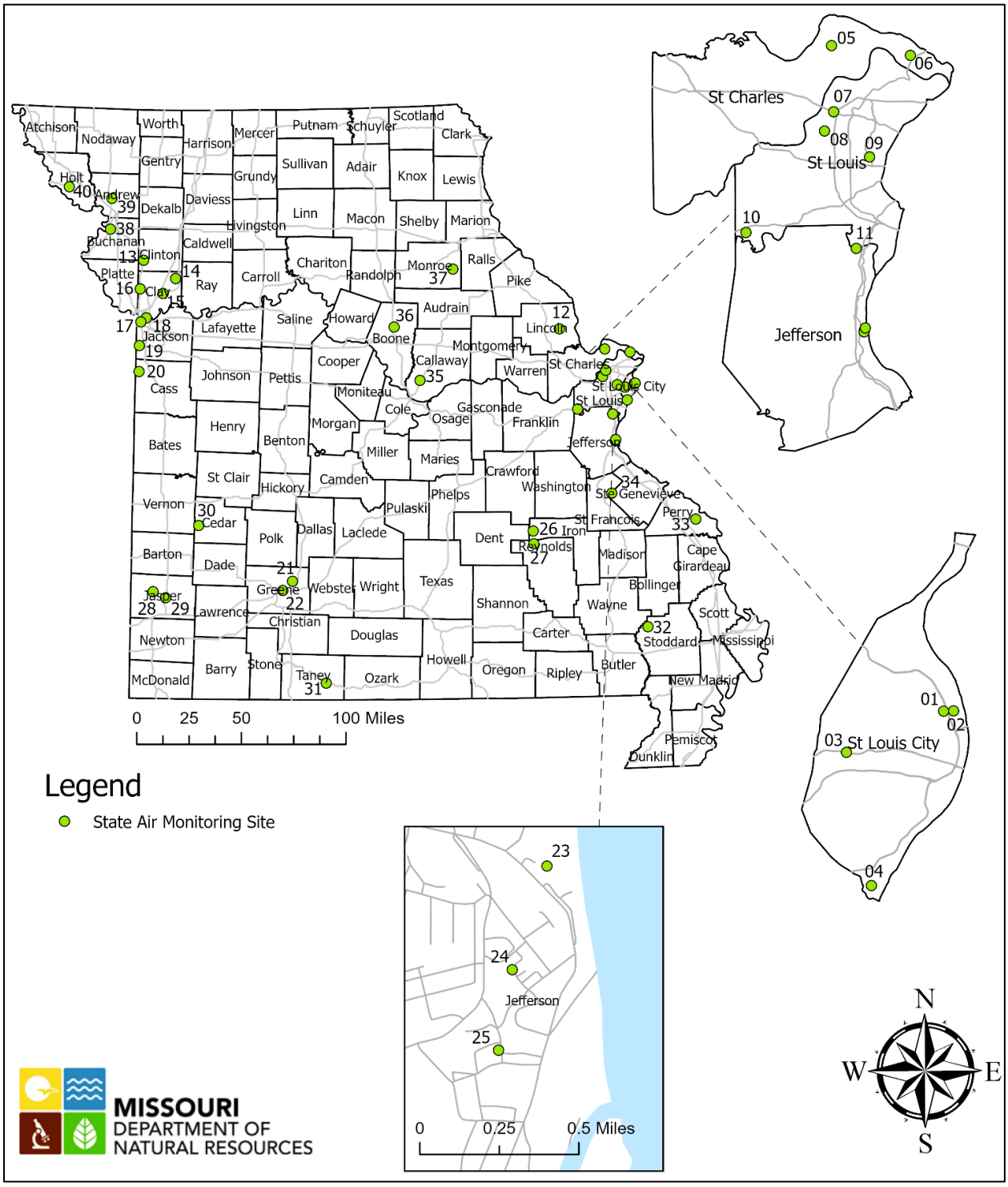


Figure 2: Industry Monitoring Sites

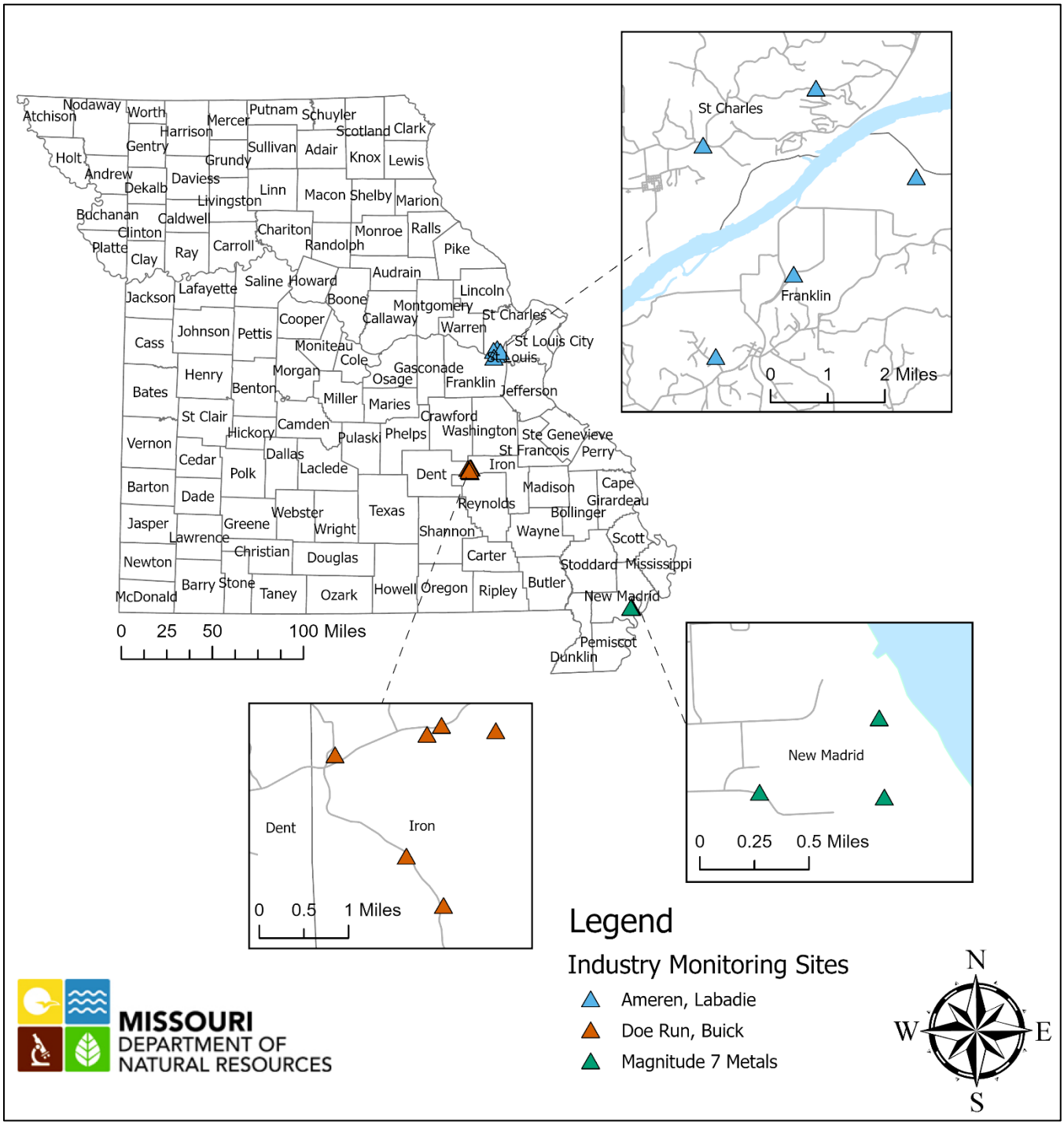


Figure 3: Missouri Metropolitan Statistical Areas

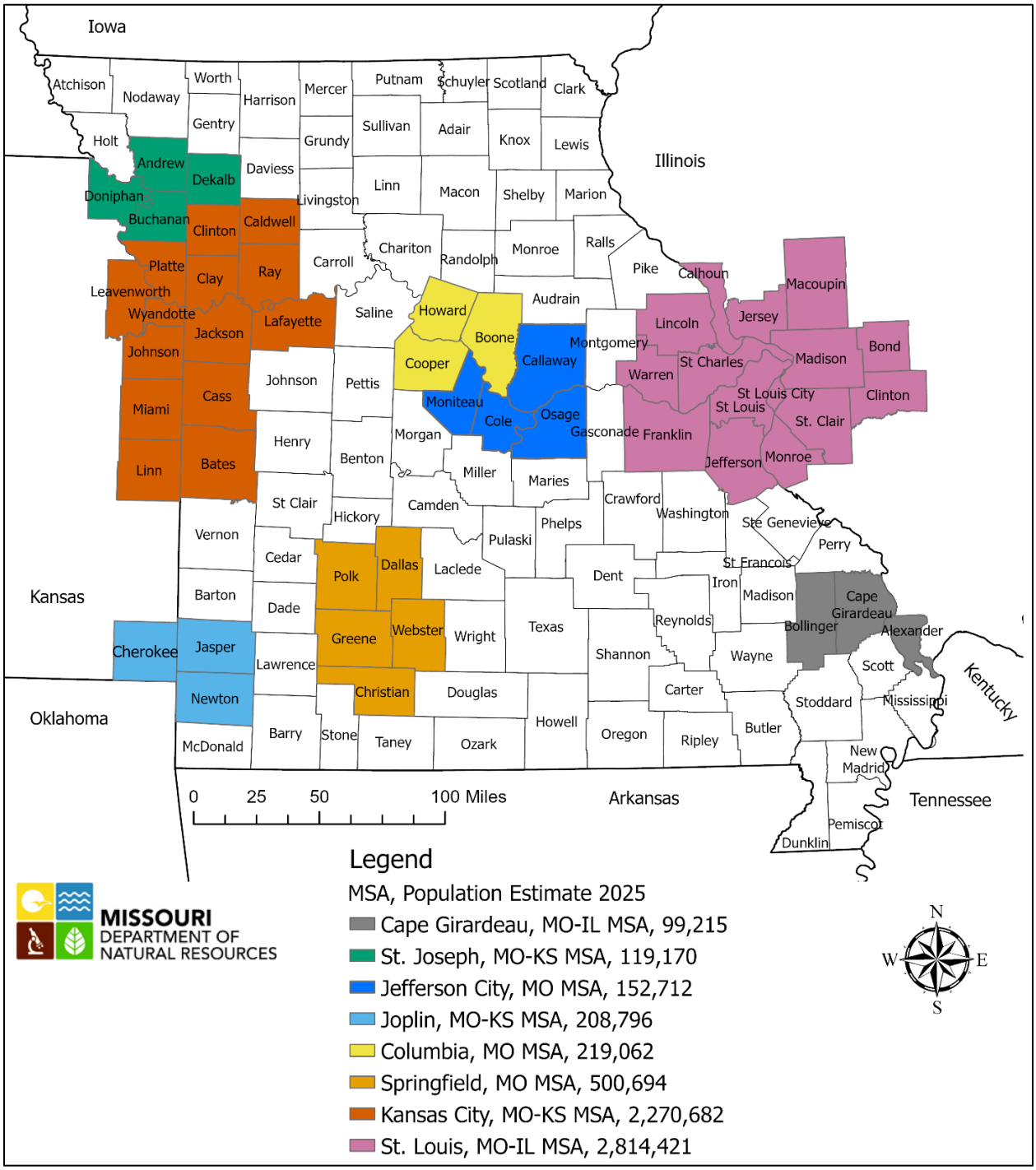


Table 2: Missouri MSA Population, 2025 Estimate

Area	Estimated Population
Cape Girardeau	99,215
St. Joseph	119,170
Jefferson City	152,712
Joplin	208,796
Columbia	219,062
Springfield	500,694
Kansas City	2,270,682
St. Louis	2,814,421

Monitoring Network

1. Lead (Pb) Monitoring Network

On September 16, 2016, based on its review of the air quality criteria for lead, EPA issued a decision to retain the existing 2008 standards without revision. The level of the 2008 Lead NAAQS is 0.15 micrograms per cubic meter (µg/m3) not to be exceeded in any 3-month period. The design value is the maximum rolling 3-month lead-TSP average over a 3-year period.

The department's Buick Northeast site is currently violating the lead NAAQS. The Buick Northeast site may not be in violation if the department eventually combines data with Doe Run.

EPA requires the monitoring of lead sources emitting 0.50 tons per year (tpy) or more. All airports in Missouri are exempt from this requirement. A review of 2024 emission data did not identify any new sources emitting greater than 0.50 tpy. Only the Doe Run Buick smelter shows emissions greater than 0.50 tpy. The department will continue to review emission data for new sources in the future.

1.1 Doe Run-Operated Sites

Doe Run operates lead monitoring sites in the vicinity of its industrial facility in Boss. Doe Run's South #1 (AQS Site ID 29-093-0016) and Doe Run's North #5 (AQS ID 29-093-0021) are non-ambient and are not comparable to the NAAQS. Monitoring locations operated by Doe Run are displayed in Figure 4 below.

1.2 State-Operated Sites

The 2026 lead monitoring network operated by the department is displayed in Figure 4 below.

Figure 4: Missouri Lead (Pb) Monitoring Network

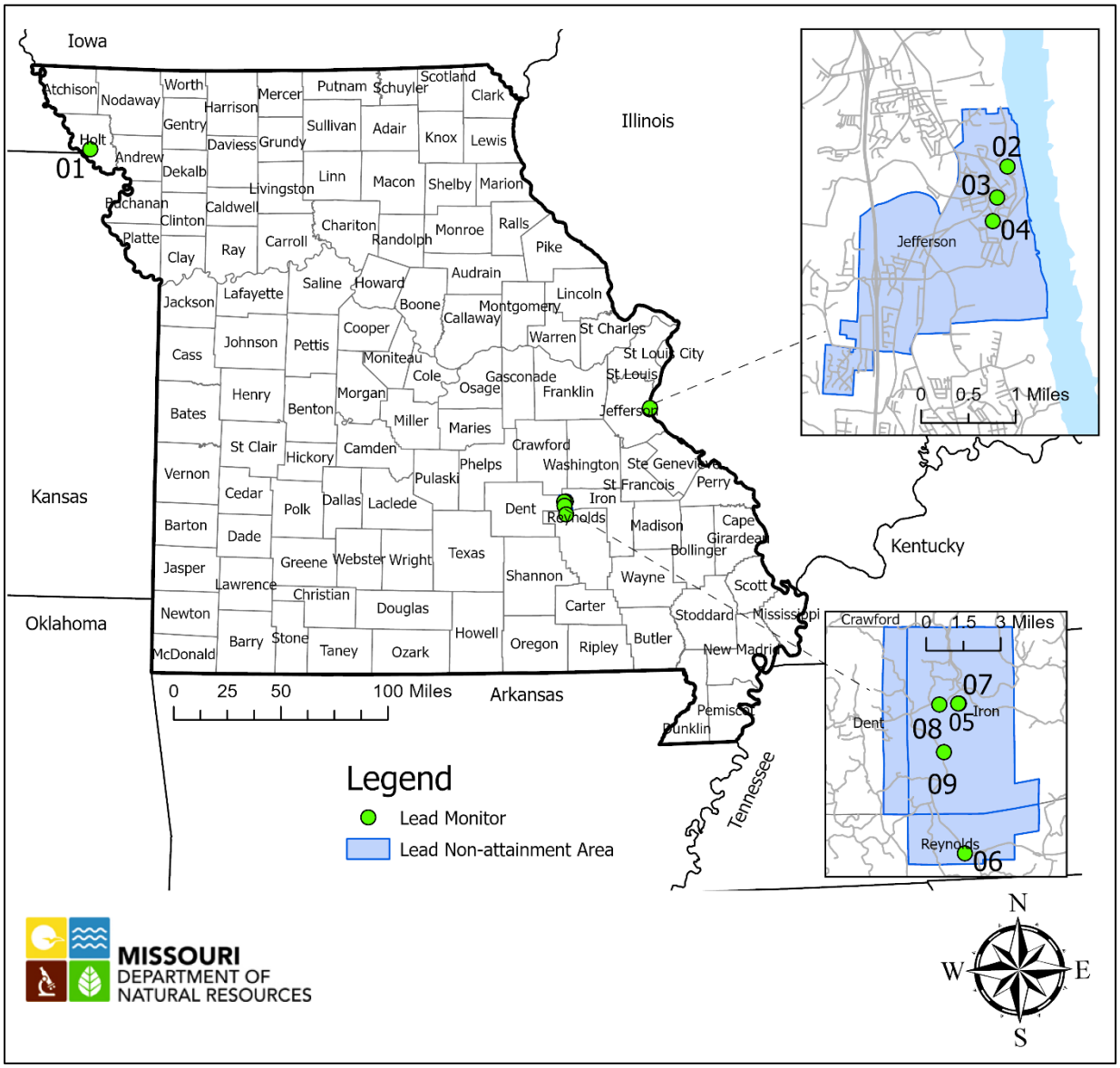


Table 3: 2023 – 2025 Lead Site Design Values

Site Name	Map Reference Number	Design Value Micrograms per Cubic Meter ($\mu g/m^3$)
Forest City, Exide Levee	01	0.02
Herculaneum, Sherman	02	0.03
Dunklin High School	03	0.03
Herculaneum, Mott Street	04	0.02
Buick NE	05	0.21
Oates	06	0.04
Doe Run Buick – Buick NE	07	0.13
Doe Run Buick North #5	08	Non-Ambient
Doe Run Buick South	09	Non-Ambient

2. Sulfur Dioxide (SO_2) Monitoring Network

EPA reviewed the 1-hour SO_2 standard and announced, in March 2019, the standard would remain at 75 parts per billion (ppb). The 1-hour SO_2 standard was established in 2010. The design value is the annual 99th percentile of the daily maximum 1-hour concentration values, averaged over three consecutive years.

The minimum required SO_2 monitoring network is determined by the Population Weighted Emissions Index (PWEI). The department updated the PWEI analysis using the most recent population and emission data, 2023 CBSA definitions and 2025 estimated population data from the United States Census Bureau and 2020 National Emission Inventory (NEI) emissions data. Table 4 summarizes the results. The required numbers of monitoring sites based on the PWEI remain unchanged from previous years; two sites in the St. Louis CBSA, and one in the Kansas City CBSA. All other Missouri CBSAs require no monitoring sites. The department and the Illinois Environmental Protection Agency meet this requirement in the St. Louis area with the Blair Street site in Missouri and the East St. Louis site in Illinois, and in the Kansas City area with the Troost site. The SO_2 monitoring network exceeds requirements by including the Wood River site in Illinois, the Herculaneum site in Missouri, and the JFK site in Kansas. Communications received from the Illinois Environmental Protection Agency and the Kansas Department of Health and Environment (KDHE) indicate those agencies expect to continue SO_2 monitoring at these sites.

In addition to the minimum network requirements, the department oversees several industrial SO_2 monitoring sites and one additional site. The following sections detail this information.

Table 4: Population Weighted Emission Index (PWEI) Summary

Area	Estimated 2025 Population	2020 NEI SO_2 Emissions (tpy)	PWEI	Required Number of SO_2 Monitors
St. Louis	2,814,421	62,707.68	176,486	2
Kansas City	2,270,682	5,073.41	11,520	1
Springfield	500,694	2,468.12	1,236	0
Moberly	24,513	13,743.06	337	0
Sikeston	49,978	4,298.53	215	0
Columbia	219,062	522.33	114	0
Joplin	208,796	285.07	60	0
Farmington	67,809	624.97	42	0
Jefferson City	152,712	258.05	39	0
Quincy	74,146	466.25	35	0
Cape Girardeau	99,215	339.62	34	0
St. Joseph	119,170	269.63	32	0
Hannibal	38,969	742.77	29	0
West Plains	40,798	321.08	13	0
Branson	57,001	227.13	13	0
Rolla	45,247	154.51	7	0
Poplar Bluff	41,904	120.65	5	0
Lebanon	36,943	129.83	5	0
Fort Leonard Wood	54,442	86.55	5	0
Kirksville	29,824	107.89	3	0
Sedalia	44,254	55.54	2	0
Warrensburg	56,670	43.02	2	0
Mexico	24,528	30.55	1	0
Maryville	20,174	31.36	1	0
Kennett	26,855	20.58	1	0
Marshall	23,265	20.10	0	0

Notes:

PWEI = (Population * Tons per Year of SO_2 Emissions) / 1,000,000

PWEI > 1,000,000: 3 monitors

1,000,000 > PWEI > 100,000: 2 monitors

100,000 > PWEI > 5,000: 1 monitor

Population estimates from the United States Census Bureau.

SO_2 emissions from 2020 NEI including fire emissions.

In 2015, EPA finalized the SO_2 Data Requirements Rule (DRR). The DRR required air agencies to characterize air quality, either by monitoring or modeling, around sources that emit 2,000 tpy or more of SO_2.

Sources monitoring due to the DRR include Ameren Labadie Energy Center, Magnitude 7 Metals, and Doe Run Buick Resource Recycling Facility. The industrial sources are conducting the SO_2 monitoring in accordance with the SLAMS requirements in 40 C.F.R. § 58. The department reviewed and approved the siting of the monitors based on federal regulations. To meet the requirements of the DRR, the monitors need a minimum of three years of monitoring data, which is now complete. However, the sources cannot discontinue monitoring without EPA approval based on the requirements of 40 C.F.R. § 51.1203(c) (3) or 40 C.F.R. § 58.14.

2.1 Labadie Energy Center

Ameren operates one SO_2 ambient air monitoring network around the Labadie power plant. The department classifies the monitors in the Ameren network as industrial SO_2 monitors.

Two industrial SO_2 ambient air monitoring sites and a meteorological monitoring station began operation in April 2015, in the area around the Ameren Labadie Energy Center, located at 226 Labadie Power Plant Road in Franklin County. Ameren installed two additional industrial SO_2 monitoring sites southwest and north of the Labadie Energy Center, which began operation on Jan. 1, 2017. In addition, Ameren added meteorological monitoring using a 10-meter tower at the Northwest site. A sound detection and ranging (SODAR) instrument was initially located at the Valley site, relocated to the Northwest site in February 2017, and relocated again to the Labadie Plant site in August 2017. Ameren operates these monitoring sites under a department-approved QAPP. The 2015 and 2016 monitoring network plans provide a detailed discussion on the modeling results that support the site selection. These monitors have not shown a violation of the NAAQS. EPA proposed redesignation of the area in St. Charles and Franklin counties around this facility from unclassifiable to attainment in August 2020. However, EPA did not finalize the redesignation, and the area currently remains designated unclassifiable as of this writing (May 2026).

2.2 Doe Run Buick Resource Recycling Facility

The Doe Run Company began SO_2 monitoring at three sites in the area around the Buick Resource Recycling Facility near Boss starting Jan. 1, 2017. Meteorological monitoring is also conducted at the Buick South lead monitoring site, south of the facility. These sites are operated under a department-approved QAPP, which includes performance evaluations (audits) by department staff. Locations of these ambient SO_2 monitoring sites were determined on the basis of air quality modeling of the impact of facility emissions, as described in the 2016 Monitoring Network Plan. These monitors have not shown a violation of the NAAQS, and EPA finalized the designation of Iron County, where this facility is located, as attainment/unclassifiable in March 2021 (effective April 2021).

2.3 Magnitude 7 Metals Facility

Magnitude 7 Metals (M7M) is conducting SO_2 monitoring at three sites and meteorological monitoring at one in the area around its facility near New Madrid. Monitoring at these sites started in January 2017. M7M operates these sites under a department-approved QAPP, which includes performance evaluations (audits) by department staff. The department determined the locations for these ambient SO_2 monitoring sites based on air quality modeling of the impact of facility emissions.

In March 2021 (effective April 2021), EPA finalized the designation of an area surrounding the M7M facility as a nonattainment area for the 1-hour SO_2 NAAQS, based on 2017-2019 data. EPA designated the remainder of New Madrid County as attainment/unclassifiable. All three of the M7M sites continued to be in violation of the NAAQS based on 2019 through 2021, 2020 through 2022, or 2021 through 2023 data.

On Oct. 31, 2022, the department proposed a New Madrid SO_2 nonattainment area SIP revision, which was adopted by the Missouri Air Conservation Commission on April 27, 2023. The SIP revision addresses the nonattainment area planning requirements of the Clean Air Act. The plan includes two new enforceable consent agreements for the two major emitting facilities located in the nonattainment area, the M7M primary aluminum smelter and the Associated Electric Cooperative New Madrid Power Plant. In addition to new enforceable emission rates, the control strategy in this plan includes building a new 65-meter stack at the M7M facility. This SIP revision demonstrates attainment for the New Madrid County SO_2 nonattainment area using the newly established enforceable emission rates in an atmospheric dispersion modeling analysis. On May 7, 2026 EPA proposed to approve the SIP. EPA's proposal is on public notice until June 8, 2026.

In January of 2024, M7M curtailed all operations at the facility. This action suspended the consent agreement requirement for the facility to build the new stack unless and until the facility restarts operations. Monitored SO_2 concentrations decreased at the time facility operations were suspended, but monitoring is continuing at the three sites near that facility.

2.4 Rider Trail I-70 Site

The department added an SO_2 monitor, designated as an SPM, to the existing Rider Trail I-70 monitoring site in May 2016 to evaluate SO_2 levels in the general area. Since installing the site, the annual fourth-highest daily one-hour SO_2 concentration has ranged from 12 to 23 ppb.

Since the monitor is in the near-roadway environment and is in an area with several SO_2 sources, the department initially classified the spatial scale of representativeness of the SO_2 measurements as middle-scale. The department may re-evaluate this classification if trends in the monitoring data and other analyses warrant increasing the spatial scale of representativeness. The monitoring objective for this monitor is to measure population exposure.

Figure 5: Missouri Sulfur Dioxide (SO_2) Monitoring Network

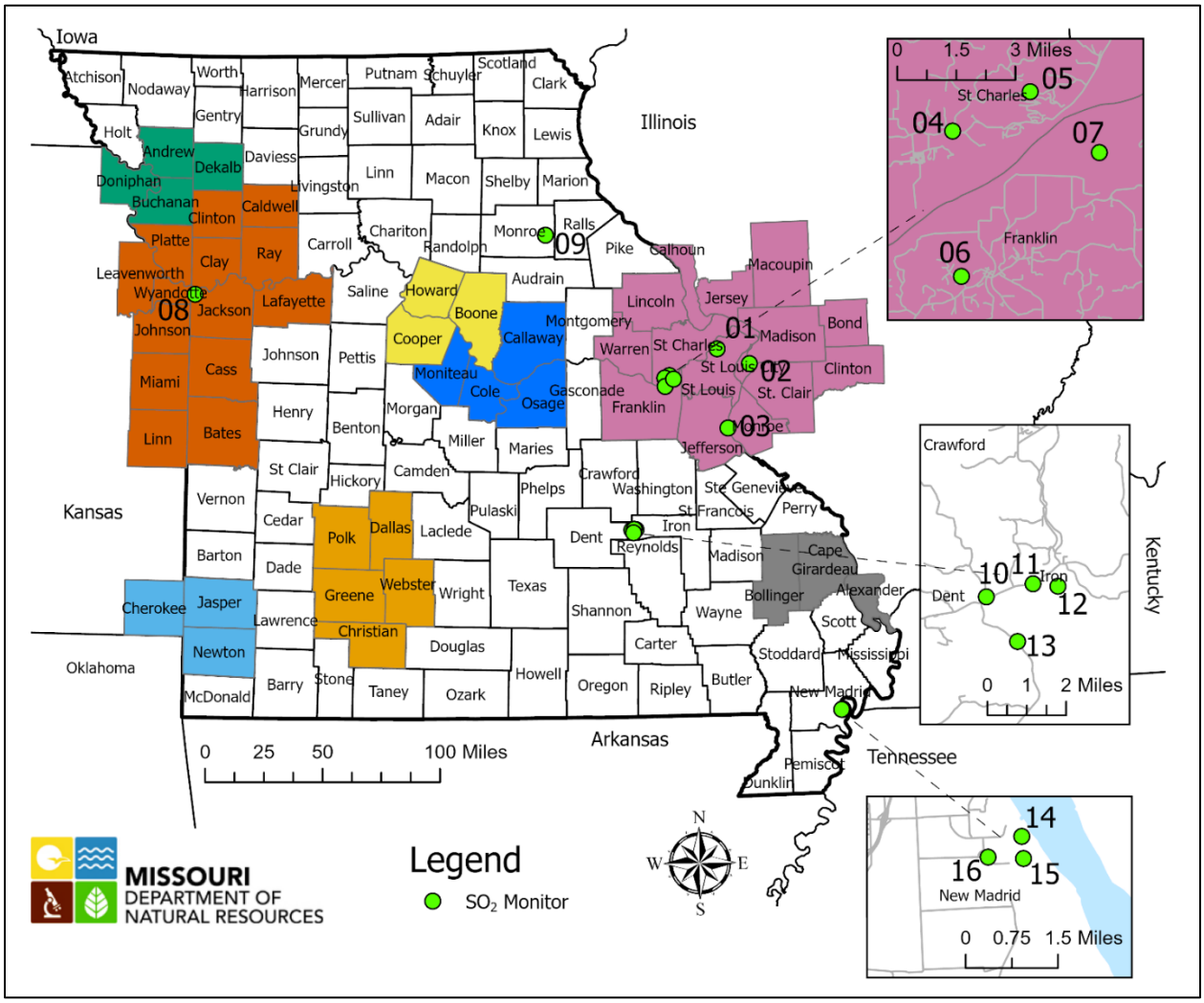


Table 5: 2023-2025 Sulfur Dioxide (SO_2) Site Design Values

Site name	Map Reference Number	Design Value Parts per Billion (ppb)
Rider Trail	01	16
Blair Street	02	10
Herculaneum, Mott Street	03	8
Labadie, Northwest	04	27
Labadie, North	05	31
Labadie, Southwest	06	27
Labadie, Valley Site	07	37
Troost	08	6
Mark Twain State Park	09	4
County Road 75	10	42
Highway 32 Northeast	11	51
Buick NE	12	59
West Entrance	13	48
M7M Site #1 AECI Water Tower	14	239
M7M Site #2 East Graveyard	15	141
M7M Site #3 West Entrance	16	55

Illinois Sites	AQS Site ID	Design Value Parts per Billion (ppb)
IEPA Trailer	17-117-0002	1
Fults	17-133-9001	Not Calculable
IEPA-RAPS Trailer	17-163-0010	Not Calculable
Water Plant	17-119-3007	1

Kansas Sites	AQS Site ID	Design Value Parts per Billion (ppb)
JFK	20-209-0021	4

3. National Air Toxics Trends Stations and Other Special Purpose Monitoring

3.1 National Air Toxics Trends Stations Monitoring

Routine National Ambient Air Toxics Trend Station (NATTS) monitoring will continue at Blair Street as described in the NATTS work plan. The department began NATTS-like

monitoring funded by the Inflation Reduction Act at the existing Troost site in Kansas City in July of 2025.

3.2 Black Carbon

Black Carbon is monitored with an aethalometer at Blair Street. Also, as part of the condition of receiving one-time Section 103 grant funds to implement sites for the near-roadway monitoring network, the department will continue to conduct special purpose $PM_{2.5}$ black carbon monitoring at the Forest Park near-roadway site and at the new Linden Hills near-roadway site using aethalometers (see Section 7). An aethalometer was placed at the Troost site in July of 2025, with the equipment funded by the Inflation Reduction Act.

4. $PM_{2.5}$ Monitoring Network

4.1 $PM_{2.5}$ SLAMS Network

EPA reviewed the 24-hour and annual $PM_{2.5}$ standards and announced, in February 2024, the 24-hour standard established in 2006 would remain at 35 micrograms per cubic meter (µg/m3), and the annual standard established in 2012 would be revised from 12.0 $\mu g/m^3$ to 9.0 $\mu g/m^3$. The 24-hour design value is calculated using the annual 98th percentile concentrations, averaged over three consecutive years. The annual design value is calculated using the annual mean concentrations, averaged over three consecutive years.

The minimum monitoring requirement based on population and past $PM_{2.5}$ measurements (40 C.F.R. § 58 Appendix D, Table D-5) requires three sites in the St. Louis area, three in the Kansas City area, and one in the Springfield area. St. Louis meets the requirement with six Missouri sites plus five Illinois sites in the St. Louis CBSA (in addition to the near-road sites). Kansas City meets the requirements with three Missouri sites plus two Kansas sites in the Kansas City CBSA (in addition to the near-road site). Springfield meets the requirement with the Hillcrest High School site. Per 40 CFR Part 58 Appendix D.4.7.1(b)(3), the Troost and Blair Street monitoring sites are considered at risk community sites.

There is one $PM_{2.5}$ monitor in Missouri that is not applicable for comparison to the annual NAAQS. The Branch Street site is a middle-scale site focused on a group of sources in the industrial riverfront area of St. Louis. This site is not representative of a neighborhood or larger spatial scale for $PM_{2.5}$ monitoring.

The $PM_{2.5}$ monitors deployed at the near-roadway NO_2 monitors are micro-scale monitors, but EPA has indicated in 40 C.F.R. § 58 Appendix D, 4.7.1(c)(2) that *"In many situations, monitoring sites that are representative of microscale or middle-scale impacts are not unique and are representative of many similar situations. This can occur along traffic corridors or other locations in a residential district. In this case, one location is representative of a number of small-scale sites and is appropriate for evaluation of long-term or chronic effects."* EPA may consider these monitors representative of larger areas near roadways and comparable to the annual $PM_{2.5}$ NAAQS consistent with 40 C.F.R. § 58.30.

The Hercules Glades and Mingo Interagency Monitoring of Protected Visual Environments (IMPROVE) sites meet the requirement for regional background $PM_{2.5}$ monitoring. The monitoring at the Mingo Wildlife Refuge is currently offline due to tornado damage that occurred in 2025. Efforts are underway to bring the site back online.

In addition to the Hercules Glades and Mingo regional background sites, the Arnold West and El Dorado Springs sites serve to monitor transport into eastern and western Missouri urban areas, respectively.

The 1405-Fs are the primary FEM reporting instruments in the Missouri network for $PM_{2.5}$ measurement.

Two 1405-F instruments are operated at the St. Joseph Pump Station site; one designated as primary, and one as collocated to satisfy part of the collocation requirement for that FEM method. The FRM $PM_{2.5}$ sampler at Blair Street serves as the collocated FRM sampler for 1405-F instruments.

The department is continuing to operate Teledyne API T640X instruments at Blair Street, Troost, and Hillcrest High School in Springfield. The T640X instruments are designated as SPMs to evaluate this instrument, which measures airborne particulate concentration using light scattering, for possible future use in the $PM_{2.5}$ network. The department plans to use the T640X at Troost as a SLAMS monitor for PM_{10}.

The department is also operating a Teledyne API T640, provided by EPA, at the Forest Park site in St. Louis. EPA is using data with a time resolution as short as one minute from that instrument and time-resolved data from the 1405-F and meteorological instruments in non-parametric trajectory analysis (NTA), which uses high time-resolution $PM_{2.5}$ concentrations, other air quality data, and wind data to help identify source impacts. The department also provides time-resolved data to EPA from the Teledyne API T640X and other instruments at the Troost site in Kansas City.

4.2 $PM_{2.5}$ Chemical Speciation Network (CSN)

The department conducts $PM_{2.5}$ speciation sampling at Blair Street in St. Louis (every three days) and at Arnold West (every six days).

4.3 $PM_{2.5}$ Section 103 Federal Funding

This plan is contingent on EPA providing adequate grant funds to operate and maintain the $PM_{2.5}$ monitoring network.

40 C.F.R. § 58.14 (c) indicates*, "State, or where appropriate, local agency requests for SLAMS monitor station discontinuation, subject to the review of the Regional Administrator, will be approved if any of the following criteria are met and if the requirements of appendix D to this part, if any, continue to be met. Other requests for discontinuation may also be approved on a case-by-case basis if discontinuance does not compromise data collection needed for implementation of a NAAQS and if the requirements of appendix D to this part if any, continue to be met."*

If reductions to the network become necessary, the department will provide written communication describing the network changes to the EPA Regional Administrator for review and approval, consistent with 40 C.F.R. § 58.14(b).

Figure 6: Missouri $PM_{2.5}$ Monitoring Network

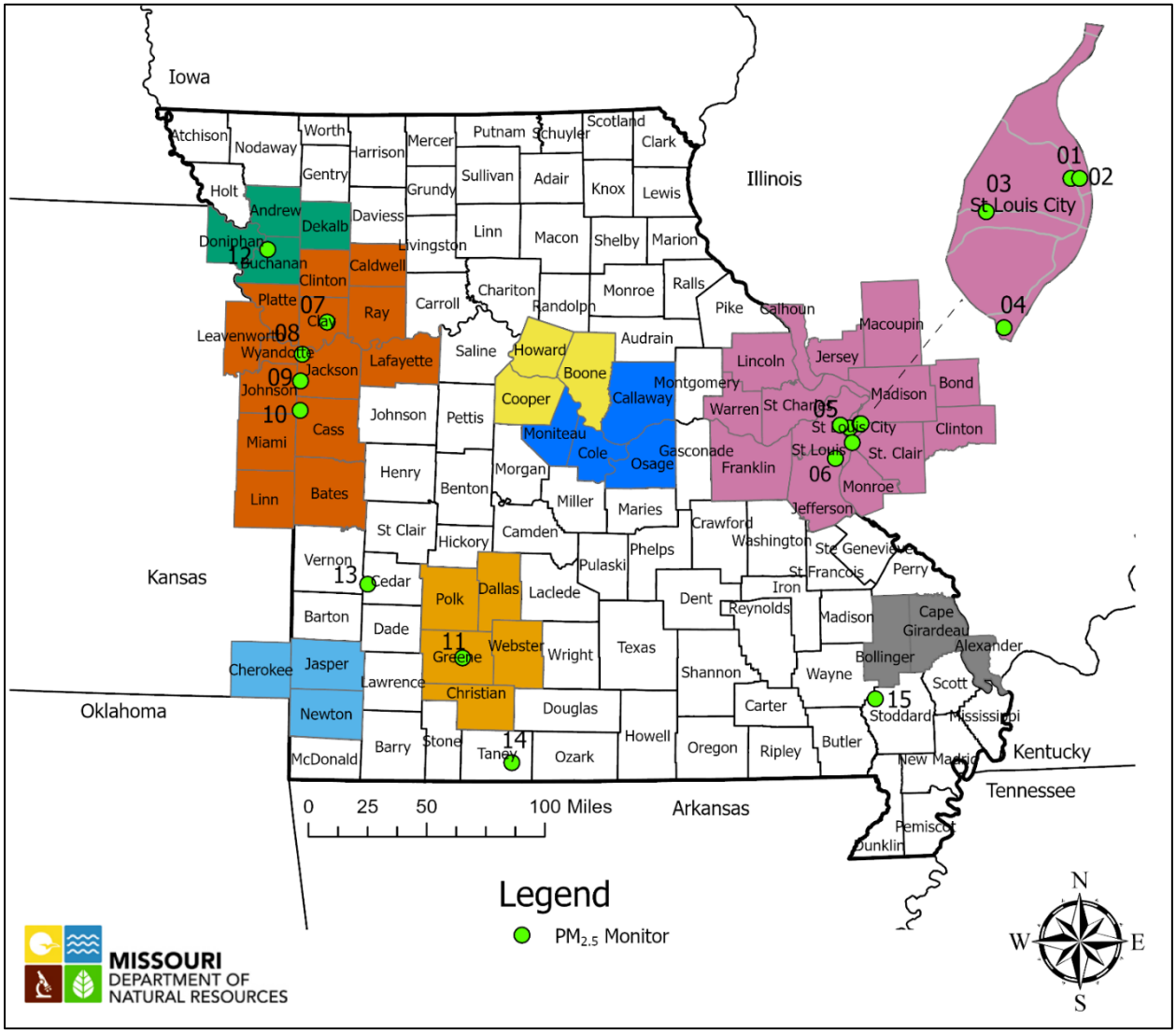


Table 6: 2023-2025 $PM_{2.5}$ Site Design Values

Site Name	Map Reference Number	24-hour Design Value Micrograms per Cubic Meter ($\mu g/m^3$)	Annual Design Value Micrograms per Cubic Meter ($\mu g/m^3$)
Blair Street	01	21	9.0
Branch Street	02	22	Not Applicable
Forest Park	03	19	8.1
South Broadway	04	17	6.9
Ladue	05	17	6.9
Arnold West	06	17	7.2
Liberty	07	15	5.8
Troost	08	18	7.4
Linden Hills	09	Not calculable	Not calculable
Richards Gebaur-South	10	Not calculable	Not calculable
Hillcrest	11	16	6.6
St. Joseph Pump Station	12	20	9.0
El Dorado Springs	13	15	6.0
Hercules Glade	14	Not Applicable	Not Applicable
Mingo Refuge	15	Not Applicable	Not Applicable

Illinois site	AQS ID	24-hour Design Value Micrograms per Cubic Meter ($\mu g/m^3$)	Annual Design Value Micrograms per Cubic Meter ($\mu g/m^3$)
Jerseyville Water Treatment Plant	17-083-0117	20	7.1
Gateway Regional Medical Center	17-119-0024	Not Calculable	Not Calculable
Alton Horace Mann Elementary School	17-119-0120	20	8.6
Fire Station #1	17-119-1007	21	9.4
Water Plant	17-119-3007	20	8.3
IEPA-RAPS Trailer	17-163-0010	22	9.4

Kansas Site	AQS ID	24-hour Design Value Micrograms per Cubic Meter ($\mu g/m^3$)	Annual Design Value Micrograms per Cubic Meter ($\mu g/m^3$)
Heritage Park	20-091-0010	21	8.2
JFK	20-209-0021	25	9.1

Table 7: Missouri $PM_{2.5}$ Monitoring Network

St. Louis Sites	Map Reference Number	Schedule	Type	Agency	Purpose
Blair St.	01	Every Third Day	R&P 2025	ESP	NCore, Collocation
Blair St.	01	Every Third Day	Speciation, Met1, URG	ESP	Chemical Speciation Network
Blair St.	01	Continuous	1405-F	ESP	24-hour NAAQS, Annual NAAQS, AQI, NCore, PM Coarse
Blair St.	01	Continuous	T640x	ESP	Method Research
Branch St.	02	Continuous	1405-F	ESP	24-hour NAAQS, AQI
Branch St.	02	Continuous	T640x	ESP	Method Research
Forest Park	03	Continuous	1405-F	ESP	24-hour NAAQS, Annual NAAQS, AQI, Near-Road
Forest Park	03	Continuous	T640	ESP	Method Research
South Broadway	04	Continuous	1405-F	ESP	24-hour NAAQS, Annual NAAQS, AQI
Ladue	05	Continuous	1405-F	ESP	24-hour NAAQS, Annual NAAQS, AQI
Arnold West	06	Every Sixth Day	Speciation		Chemical Speciation Network
Arnold West	06	Continuous	1405-F	ESP	24-hour NAAQS, Annual NAAQS, AQI

Kansas City Sites	Map Reference Number	Schedule	Type	Agency	Purpose
Liberty	07	Continuous	1405-F	ESP	24-hour NAAQS, Annual NAAQS, AQI
Troost	08	Continuous	1405-F	ESP	24-hour NAAQS, Annual NAAQS, AQI
Troost	08	Continuous	T640x	ESP	Method Research
Richards-Gebaur South	09	Continuous	1405-F	ESP	24-hour NAAQS, Annual NAAQS, AQI
Linden Hills	10	Continuous	1405-F	ESP	24-hour NAAQS, Annual NAAQS, AQI, Near-Road

Springfield Sites	Map Reference Number	Schedule	Type	Agency	Purpose
Hillcrest High School	11	Continuous	1405-F	ESP	24-hour NAAQS, Annual NAAQS, AQI
Hillcrest High School	11	Continuous	T640x	ESP	Method Research

Outstate Sites	Map Reference Number	Schedule	Type	Agency	Purpose
El Dorado Springs	13	Continuous	1405-F	ESP	24-hour NAAQS, Annual NAAQS, AQI
Mingo	14	Every Third Day	IMPROVE	Fish & Wildlife Service	Chemical Speciation Network
Hercules Glades	15	Every Third Day	IMPROVE	Forest Service	Chemical Speciation Network

St. Joseph Sites	Map Reference Number	Schedule	Type	Agency	Purpose
St. Joseph Pump Station	12	Continuous	1405-F	ESP	24-hour NAAQS, Annual NAAQS, AQI
St. Joseph Pump Station	12	Continuous	1405-F	ESP	Collocation

5. Ozone (O_3) Monitoring Network

EPA reviewed 8-hour ozone standard and announced, in December 2020, the standard would remain at 70 parts per billion (ppb). The 8-hour standard was established in 2015. The design value is the 3-year average of the annual 4th highest daily maximum 8-hour ozone concentration.

The department is not planning any changes to the ozone monitoring network. Ozone monitoring will continue all year at the Mark Twain State Park (MTSP) site to collect ozone background concentrations needed for Prevention of Significant Deterioration (PSD) modeling projects and at Blair Street to meet the NCore ozone monitoring requirement. The current monitoring network meets or exceeds the population-based requirements in 40 C.F.R § 58 Appendix D, which requires a minimum of two sites each in the St. Louis, Kansas City and Springfield areas.

Figure 7: Missouri Ozone (O_3) Monitoring Network

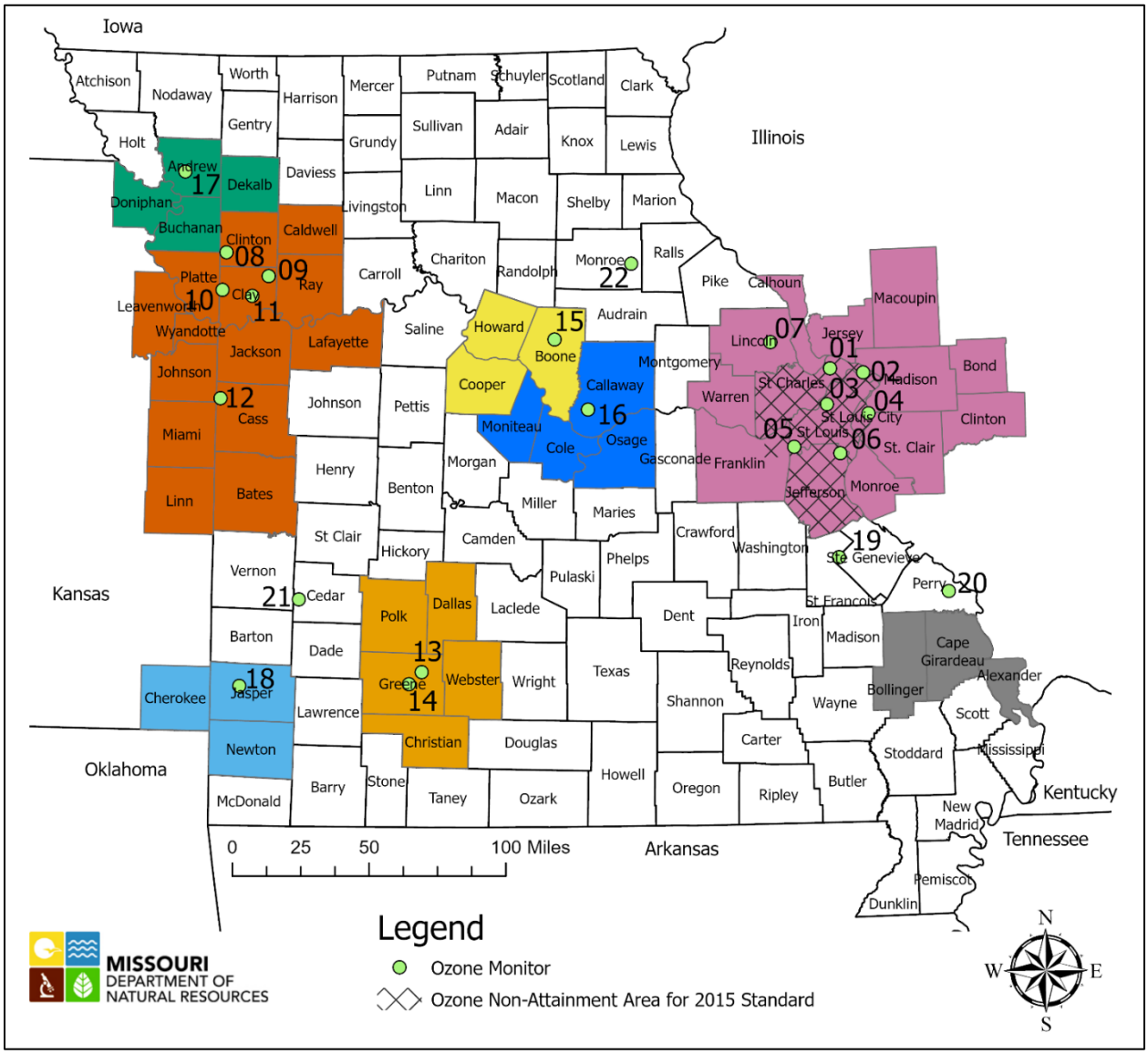


Table 8: 2023-2025 Ozone Site Design Values

Site Name	Map Reference Number	Design Value Parts per Billion (ppb)
Orchard Farm	01	70
West Alton	02	70
Maryland Heights	03	70
Blair Street	04	69
Pacific	05	70
Arnold West	06	70
Foley West	07	69
Trimble	08	68
Watkins Mill State Park	09	67
Rocky Creek	10	73
Liberty	11	69
Richard Gebaur-South	12	65
Fellows Lake	13	65
Hillcrest High School	14	64
Finger Lakes	15	64
New Bloomfield	16	63
Savannah	17	66
Alba	18	64
Bonne Terre	19	68
Farrar	20	68
El Dorado Springs	21	65
Mark Twain State Park	22	63

Illinois sites	AQS Site ID	Design Value Parts per Billion (ppb)
Jerseyville Water Treatment Plant (WTP)	17-083-0117	73
IEPA Trailer	17-117-0002	67
Alton Horace Mann Elementary School	17-119-0120	70
Village of Maryville	17-119-0122	70
Water Plant	17-119-3007	70
IEPA- RAPS Trailer	17-163-0010	67

Kansas Sites	AQS Site ID	Design Value Parts per Billion (ppb)
Heritage Park	20-091-0010	65
Leavenworth	20-103-0003	67
JFK	20-209-0021	70

6. PM_{10} Monitoring Network

EPA reviewed 24-hour PM_{10} standard and announced, in February 2024, the standard would remain at 150 micrograms per cubic meter (µg/m3). The 24-hour standard was established in 1987. The NAAQS design value is the annual estimated number of exceedances, averaged over three consecutive years.

The department discontinued collocated FRM PM_{10} monitoring at Blair Street in St. Louis in February 2018. EPA no longer requires the collocation of the manual PM_{10} sampler (40 C.F.R. § 58 Appendix A, 3.3.4). The department designated the continuous PM_{10} from the Teledyne API T640X FEM monitor as primary and discontinued the primary FRM PM_{10} monitor at the site effective July 1, 2019. The Teledyne API T640X also reports PM_{Coarse} for the Blair NCore requirements.

The St. Louis CBSA includes four PM_{10} sites (not including the microscale Forest Park site). This monitor count includes the Granite City Fire Station site in Illinois, which the Illinois Environmental Protection Agency expects to continue operating based on communication with that agency. The Branch Street site is exceeding 120% of the standard. As a result, the St. Louis area falls into the 'High' category, requiring six to ten monitors. In the 2024 Monitoring Network Plan approval letter, EPA Region 7 stated:

The Branch Street monitoring site ambient PM10 24-hour average concentrations have exceeded the PM_{10} NAAQS by at least 20% in recent years, including this year when currently uncertified data preliminarily shows several occurrences. While this meets the criteria for 'High concentration' and would increase the minimum number of monitors in 40 CFR 58 Appendix D Section 4.6, we note that the elevated concentrations and their causes appear to be localized and likely controllable with efforts by Missouri and Region 7 to obtain emissions reductions. Having consulted with EPA Region 5, we encourage Missouri to prioritize work to reduce concentrations and eliminate the requirement to install an additional monitor. Reducing emissions from localized sources affecting the monitor will provide a greater air quality benefit to the public than the installation of an additional monitor in the MSA. Please continue to coordinate with Region 7 staff on this issue.

In the 2025 Monitoring Network Plan approval letter, EPA Region 7 stated:

In the 2024 Plan approval letter, Region 7 suggested working to reduce emissions from localized sources affecting ambient PM_{10} levels at the Branch Street site would be more protective of air quality than installing an additional PM_{10} monitor in the St. Louis Metropolitan Statistical Area as required by minimum monitoring requirements in Table D-4 of 40 CFR Part 58 Appendix D. Elevated ambient PM_{10} levels continue to occur at the Branch Street site. Lowering ambient PM_{10} levels will benefit air quality and remove the requirement to install an additional monitor. Please continue to coordinate with EPA Region 7 staff and prioritize your efforts to obtain emission reductions from localized sources to lower ambient PM_{10} levels.

The department agrees with this approach and will continue to work towards this goal to focus resources on reducing emissions around the Branch Street monitor instead of adding additional PM_{10} monitors to the St. Louis area. The department will continue to coordinate with EPA Region 7 on this issue.

The Front Street monitor is regularly exceeding 80% of the 24-hour 150 µg/m^3 PM_{10} exceedance threshold (120 µg/m^3). As a result, the Kansas City area falls into the 'Medium' category, requiring four to eight monitors. There are two PM_{10} monitors in Missouri (Front Street and Troost) and two in Kansas (JFK and Heritage Park) in the Kansas City area. KDHE is not anticipating any network changes.

The 2025 estimated population of the Springfield CBSA is 500,694. This is the first time the CBSA exceeded 500,000. As a result, the minimum PM_{10} monitoring requirement will increased from zero to one sites to one to two sites. The Springfield CBSA continues to meet the minimum monitoring requirements.

The department installed a collocated PM_{10} TEOM-1400ab monitor at the Carthage site in April 2016 and will continue to operate it because of the importance of that site being near a source.

Figure 8: Missouri PM_{10} Monitoring Network

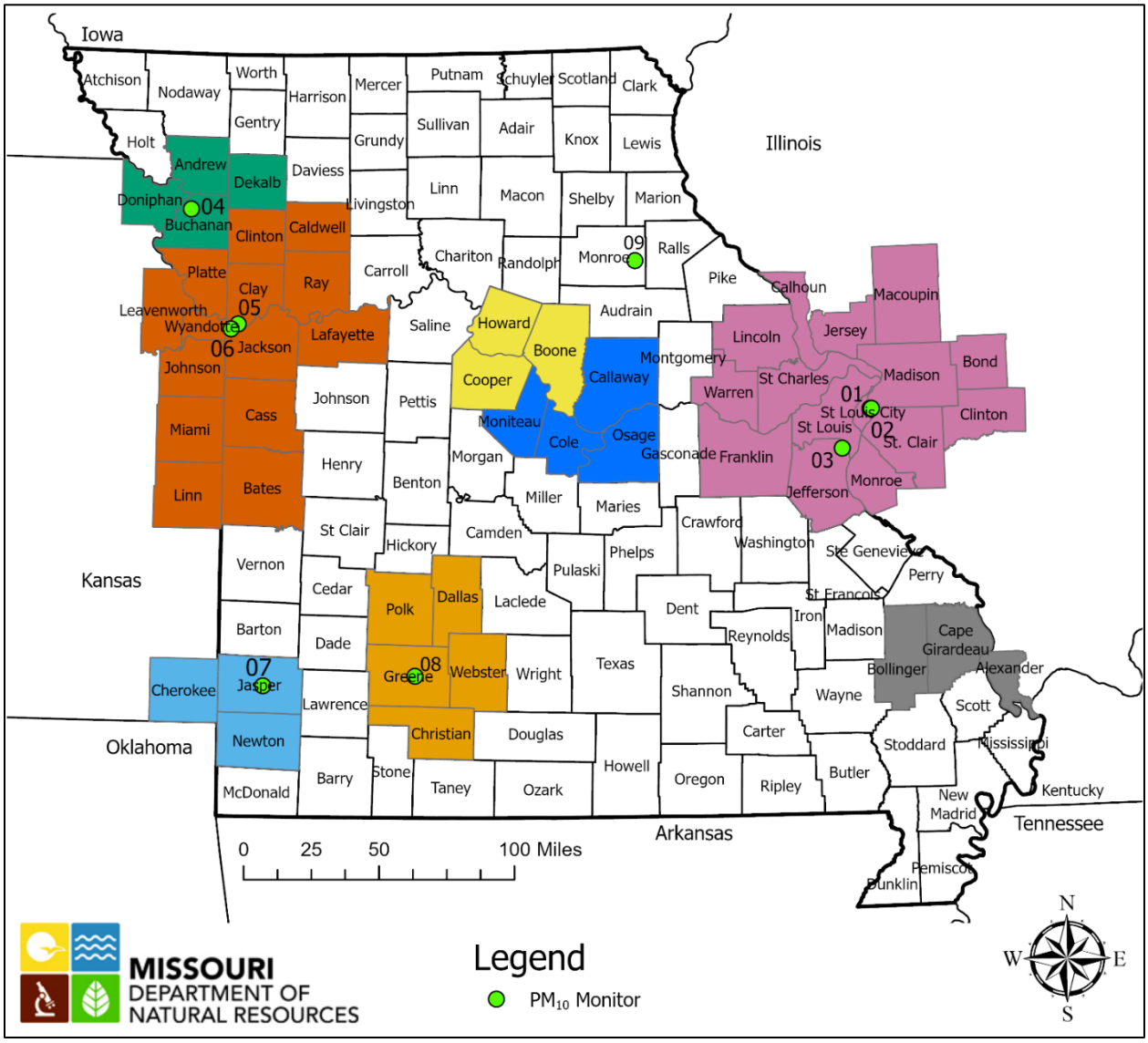


Table 9: 2023-2025 PM_{10} Site Design Values

Site Name	Map Reference Number	Design Value Number of Expected Exceedances
Blair Street	01	0.3
Branch Street	02	4.4
Arnold West	03	0.0
St. Joseph Pump Station	04	0.4
Front Street	05	0.3
Troost	06	0.3
Carthage	07	1.0
Hillcrest High School	08	0.8
Mark Twain State Park	09	0.0

Illinois Sites	AQS Site ID	Design Value Number of Expected Exceedances
Fire Station #1	17-119-1007	0.3

Kansas Sites	AQS Site ID	Design Value Number of Expected Exceedances
Heritage Park	20-091-0010	1.3
JFK	20-209-0021	Not Calculable

7. Nitrogen Dioxide (NO_2) Monitoring Network

EPA reviewed 1-hour and annual NO_2 standards and announced, in April 2018, the standards would remain at 100 parts per billion (ppb) and 53 ppb, respectively. The 1-hour standard was established in 2010. The annual standard was established in 1971. The 1-hour standard design value is the annual 98th percentile of the daily maximum 1-hour concentration values, averaged over three consecutive years. The annual standard design value is the annual average of the hourly concentration values.

The 2010 revisions to the NO_2 NAAQS required two near-road NO_2 monitoring sites in the St. Louis CBSA and one in the Kansas City CBSA. The department established the first St. Louis area site in January 2013, the Kansas City area site in July 2013 and the second near-roadway site in the St. Louis area in January 2015.

The first St. Louis area near-roadway site, Forest Park, is adjacent to I-64 west of downtown St. Louis. Air monitoring results at that site are consistent with commuter traffic, heaviest on weekday mornings. The second St. Louis area site, Rider Trail I-70, is adjacent to Interstate 70, just west of Interstate 270. Interstate 70 extends across the United States and carries through traffic in addition to commuter traffic and other local traffic. Therefore, the fleet mix and congestion patterns, relative to time of day and day of the week, are different than at the Forest Park site.

The department discontinued monitoring at the Kansas City area near-roadway site, Blue Ridge I-70 in May 2023 because of site security issues. The department resumed near-road monitoring in the Kansas City area in January 2025 at the new Linden Hills site replacing the previous Blue Ridge, I-70 site. The new site is adjacent to I-435 in southern Kansas City.

The Troost site in Kansas City meets the requirement for community-wide monitoring in CBSAs with a population larger than 1 million (40 C.F.R. § 58 Appendix D, 4.3.3(a)). Blair Street meets the requirement in St. Louis. Both the Kansas City and St. Louis areas exceed the requirement with monitoring at the JFK site and East St. Louis site, respectively.

40 C.F.R. § 58, Appendix D, 4.3.4 includes the following additional requirement for NO_2 monitoring:

4.3.4 Regional Administrator Required Monitoring

The Regional Administrators, in collaboration with States, must require a minimum of forty additional NO_2 monitoring stations nationwide in any area, inside or outside of CBSAs, above the minimum monitoring requirements, with a primary focus on siting these monitors in locations to protect susceptible and vulnerable populations….

The department discontinued NO_2 monitoring at the Margaretta site at the beginning of 2019 and requested that EPA designate Blair Street as a site located in an area where susceptible and vulnerable populations live, work and play, therefore meeting this requirement.

The department monitors NO_2 at the Blair Street site with a cavity attenuated phase shift (CAPS) $NO/NO_2/NO_X$ analyzer. The CAPS analyzer meets the requirement for True NO_2 monitoring as part of the PAMS program (see Section 9) and supplement the required NO_y monitoring at the Blair Street NCore site.

The department submitted an Enhanced Monitoring Plan (EMP) to EPA Region 7 in 2025 as a part of the 5-year network assessment. EPA reviewed and approved the EMP December 2025.

One element of the EMP was to start monitoring NO_2 at Arnold West and West Alton. NO_2 monitoring began at these sites in 2025. An annual report is planned through at least 2030. These sites are considered special purpose monitors.

Figure 9: Missouri Nitrogen Dioxide (NO_2) Monitoring Network

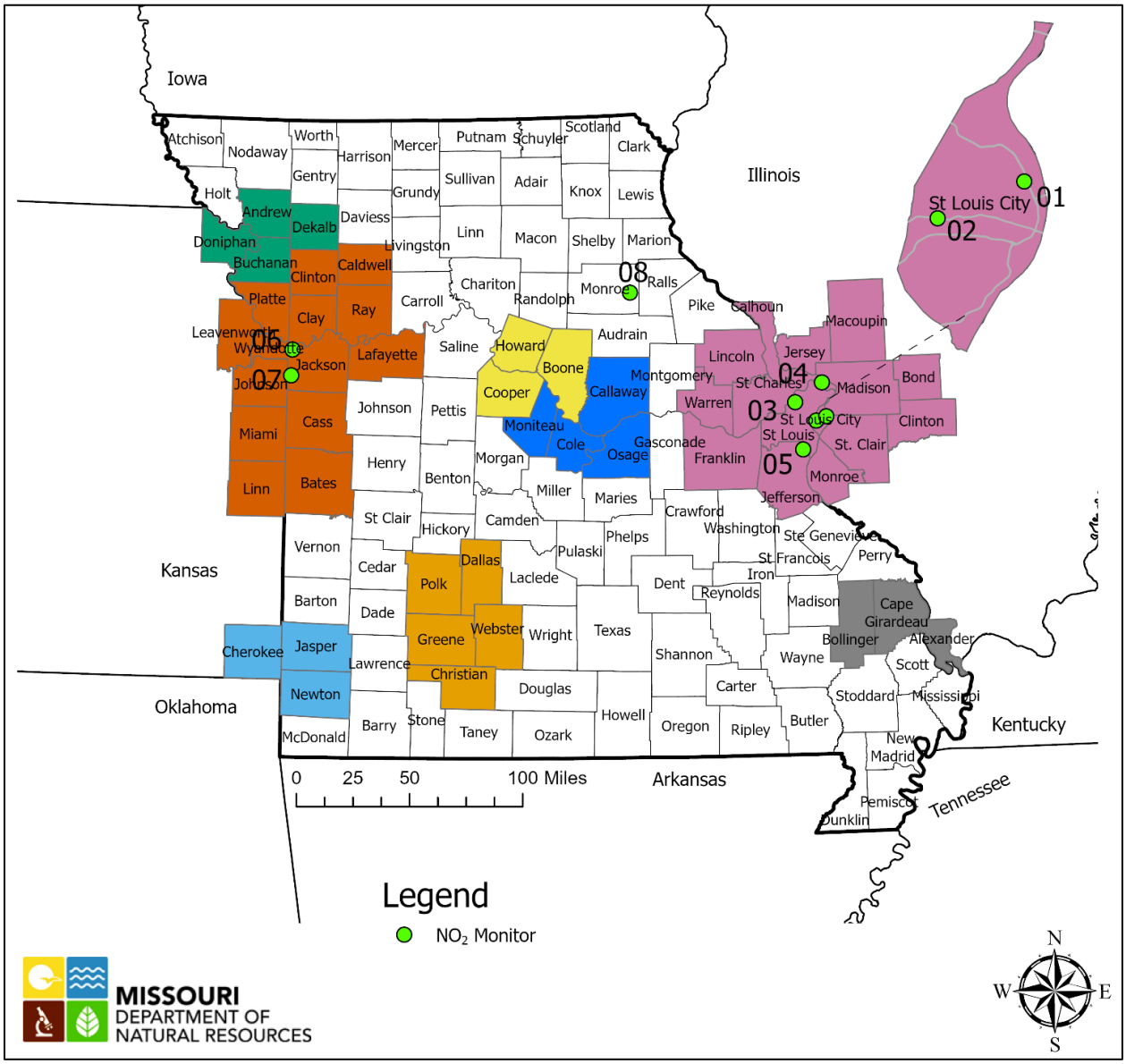


Table 10: 2023-2025 Nitrogen Dioxide (NO_2) Design Values

Site Name	Map Reference Number	1-Hour Design Value Parts per Billion (ppb)	Annual Design Value Parts per Billion (ppb)
Blair Street	01	44	9.53
Forest Park	02	42	9.96
Rider Trail	03	41	10.02
West Alton	04	Not Applicable	Not Applicable
Arnold West	05	Not Applicable	Not Applicable
Troost	06	51	13.02
Linden Hills	07	Not Calculable	Not Calculable
Mark Twain State Park	08	6	1.33

Illinois Sites	AQS Site ID	1-Hour Design Value Parts per Billion (ppb)	Annual Design Value Parts per Billion (ppb)
IEPA Trailer	17-117-0002	15	2.53
IEPA-RAPS Trailer	17-163-0010	42	8.97

Kansas Sites	AQS Site ID	1-Hour Design Value Parts per Billion (ppb)	Annual Design Value Parts per Billion (ppb)
JFK	20-209-0021	44	9.01

8. Carbon Monoxide (CO) Monitoring Network

EPA reviewed 1-hour and 8-hour CO standards and announced that in August 2011, the standards would remain at 35 parts per million (ppm) and 9 ppm, respectively. Both standards were established in 1971. The 1-hour and 8-hour design values are evaluated over a two-year period. The 1-hour standard design value is the higher of each year's annual second maximum, non-overlapping 1-hour average. The 8-hour standard design value is the higher of each year's annual second maximum, non-overlapping 8-hour average.

The 2013 NAAQS rule for CO requires near-road CO monitoring at one site in the St. Louis CBSA.

The department established CO monitoring sites at the same time as the NO_2 monitoring sites at the Forest Park I-40/64 and Blue Ridge I-70 near-roadway monitoring sites. The department discontinued monitoring at the Blue Ridge I-70 in May 2023 because of site security issues. The department resumed near-road monitoring in the Kansas City area in January 2025 at the new Linden Hills site replacing the previous Blue Ridge I-70 site. The new site is adjacent to I-435 in southern Kansas City. The department is not proposing any other changes to the CO monitoring network in this plan.

Figure 10: Missouri Carbon Monoxide (CO) Monitoring Network

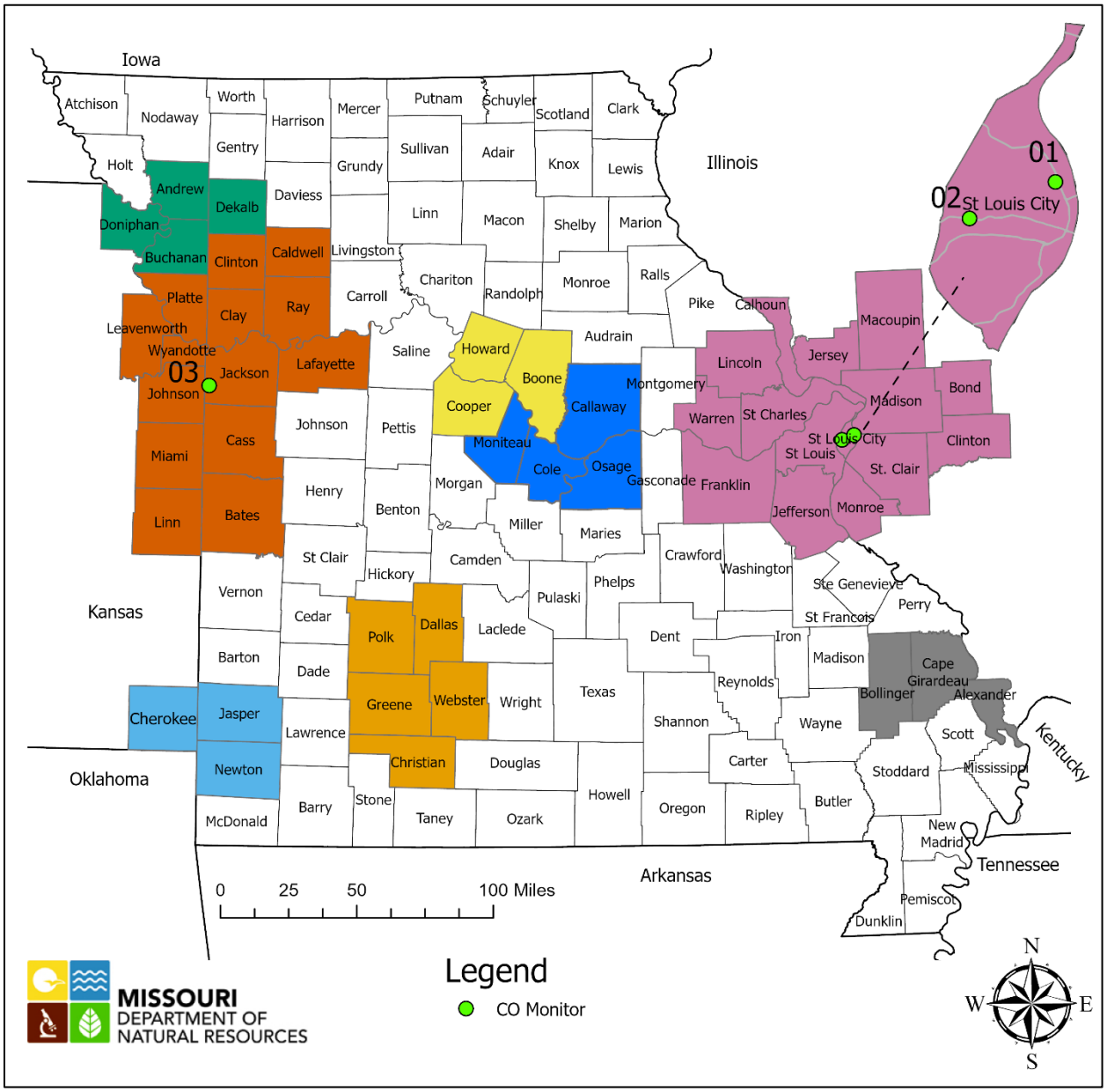


Table 11: 2024-2025 Carbon Monoxide Site Design Values

Site Name	Map Reference Number	1-hour Design Value Parts per Million (ppm)	8-hour Design Value Parts per Million (ppm)
Blair Street	01	1.6	1.3
Forest Park	02	1.2	1.0
Linden Hills	03	1.4	0.8

Kansas Sites	AQS Site ID	1-Hour Design Value Parts per Million (ppm)	8-hour Design Value Parts per Million (ppm)
JFK	20-209-0021	Not Calculable	Not Calculable

9. Photochemical Assessment Monitoring Station

In previous versions of the Monitoring Network Plan, this section served as the Photochemical Assessment Monitoring Station (PAMS) Implementation Plan. PA
MS monitoring began in June 2021. This section now describes an ongoing program.

9.1 Introduction: Regulatory Requirements and Guidance Documents

The "National Ambient Air Quality Standards for Ozone; Final Rule," (*Federal Register*, volume 80, number 206, Oct. 26, 2015), included amendment of 40 C.F.R. § 58, Appendix D (5) to include the following:

5. NETWORK DESIGN FOR PHOTOCHEMICAL ASSESSMENT MONITORING STATIONS (PAMS) AND ENHANCED OZONE MONITORING

State and local monitoring agencies are required to collect and report PAMS measurements at each NCore site required under paragraph 3(a) of this appendix located in a CBSA with a population of 1,000,000 or more, based on the latest available census figures.

PAMS measurements will include:

(1) Hourly averaged speciated volatile organic compounds (VOCs);

(2) Three 8-hour averaged carbonyl samples per day on a 1 in 3 day schedule, or hourly averaged formaldehyde;

(3) Hourly averaged O_3;

(4) Hourly averaged nitrogen oxide (NO), true nitrogen dioxide (NO_2), and total reactive nitrogen (NO_y);

(5) Hourly averaged ambient temperature;

(6) Hourly vector-averaged wind direction;

(7) Hourly vector-averaged wind speed;

(8) Hourly average atmospheric pressure;

(9) Hourly averaged relative humidity;

(10) Hourly precipitation;

(11) Hourly averaged mixing-height;

(12) Hourly averaged solar radiation; and

(13) Hourly averaged ultraviolet radiation…

(g) At a minimum, the monitoring agency shall collect the required PAMS measurements during the months of June, July and August.

The same rule included amendment of 40 C.F.R. § 58.10 (a) (10) to include the following:

A plan for making Photochemical Assessment Monitoring Stations (PAMS) measurements, if applicable, in accordance with the requirements of appendix D paragraph 5(a) of this part shall be submitted to the EPA Regional Administrator no later than July 1, 2018. The plan shall provide for the required PAMS measurements to begin by June 1, 2019.

Primarily because of delays in national procurement of some of the required equipment for PAMS measurement, EPA revised this regulation to change the required start date for PAMS measurement to June 1, 2021 (*Federal Register*, volume 85, number 5, Jan. 8, 2020, page 834).

EPA published a guidance document entitled *PAMS Required Sites Quality Assurance Implementation Plan [QAIP],* October 2016. The QAIP provides guidance for both EPA and monitoring organizations in implementation of the above-referenced PAMS requirements. The QAIP includes the following recommendations:

Monitoring organization PAMS Implementation Plan: The monitoring organization Implementation Plan document will specify how the monitoring organization will perform the measurements for the Required Network. The plan will include details on activities such as monitoring site location, costs and schedule of events, among other information. The plan will also include any waivers to siting or monitoring methods. (Page 13).

Monitoring organizations should have their PAMS waivers and Required Network Implementation Plans finalized by July 2017 and must have them completed by the end of October 2017.[20]

[20] *The regulation requires that monitoring organization Required Network Ips be developed in their Annual Network Plans due July 2018. However, in order to be operational by June 2019, it would be beneficial to have plans finalized by the end of October 2017. (Page 21).*

EPA provided additional guidance including a PAMS Technical Assistance Document (TAD) and a national QAPP, both revised most recently in 2023, and draft standard operating procedures for PAMS instrument systems. EPA also conducts monthly conference calls to disseminate information and guidance on PAMS monitoring.

Section 9 of the 2018 (and 2019 and 2020) Monitoring Network Plan(s) fulfilled the regulatory requirement in 40 C.F.R. § 58.10 (a) (10) for submittal of a PAMS Implementation Plan by July 2018. The 2017 Monitoring Network Plan included an early version of the plan to meet the recommended schedule in the QAIP for submittal by July 2017 in advance of the regulatory requirement.

9.2 PAMS Measurements

The department conducts PAMS monitoring at the Blair Street Station in St. Louis. The Blair Street Station is an NCore site in a CBSA with a population of greater than 1 million. The JFK site in Kansas City, Kansas is the NCore site and PAMS site in the Kansas City CBSA according to the *2025 Kansas Air Monitoring Network Plan*. PAMS monitoring began at Blair Street in 2021. As long as the regulatory requirements are in place and funding is available to support this activity, monitoring will continue during the months of June, July and August each year. The department will report data from PAMS monitoring to EPA's AQS database except for carbonyl and mixing height data as noted below.

The department has not requested any of the waivers from EPA described in 40 C.F.R. § 58, Appendix D (5) (c) through (f).

Each of the required measurements in 40 C.F.R. § 58, Appendix D (5) (b) is discussed below.

9.2.1. Speciated Volatile Organic Compounds (VOCs)

EPA evaluated several gas chromatographs (GC) designed to measure concentrations of hourly average speciated VOCs. EPA contracted with two of the vendors of these GC systems to provide instruments to each monitoring organization required to conduct PAMS monitoring. The department selected the Consolidated Analytical Systems (CAS)/Chromatotec AirmOzone Auto-Gas Chromatograph with Flame Ionization Detection. The department received and installed the GC in fall 2020.

Priority VOC compounds for this measurement are listed in Appendix 1 under the Method Description of "CAS Auto-Gas Chromatograph as well as in the PAMS TAD and national QAPP. In addition to these speciated VOCs, total non-methane organic compounds are also measured with the GC and hourly average concentrations reported.

9.2.2 Carbonyl Samples

The department operates a sampler capable of collecting multiple 8-hour samples using derivatized sorbent tubes according to EPA method TO-11A. Analysis of TO-11A samples for acetaldehyde and formaldehyde (the required carbonyl species) is being made available by EPA using its national contract analytical laboratory. The contract laboratory will also enter the carbonyl data into EPA's AQS database.

9.2.3 O_3

Hourly averaged ozone is measured at Blair Street as a part of the NCore requirements (see Section 5).

9.2.4 Nitrogen Oxide, True Nitrogen Dioxide, and Total Reactive Nitrogen

Nitrogen Oxide **(**NO) and Total Reactive Nitrogen (NO_y) are measured at Blair Street as a part of the NCore requirements. The department replaced the photolytic Nitrogen Dioxide (NO_2) instrument at Blair Street in June 2022 with a cavity attenuated phase shift spectroscopy (CAPS) $NO/NO_2/NO_X$ analyzer designated as FEM that will provide NO and NOx in addition to the true NO_2 measurement.

9.2.5-9.2.10 Meteorological Measurements

The department measures temperature, wind direction, wind speed, atmospheric pressure, relative humidity, and precipitation at Blair Street.

9.2.11 Mixing Height

EPA provided funding for the procurement of a ceilometer, which is an instrument that uses a laser to measure mixing height. The department operates a Vaisala CL-51 ceilometer at the Blair Street site. The department will transfer data from the ceilometer to the Unified Ceilometer Network (UCN) operated by Hampton University and the University of Maryland, Baltimore County. The UCN processes ceilometer data and will input mixing height data into EPA's AQS database.

9.2.12 Solar Radiation

Solar radiation is measured at Blair Street.

9.2.13 Ultraviolet Radiation

The department operates an ultraviolet radiation measurement instrument at Blair Street.

Network Description/Components

See Appendix 1 for the Network Description. Appendix 1 only references parameters which are reported by the department to AQS. The Network Description includes the following components:

Site Data

All ambient air monitoring sites are recorded in the EPA's AQS database. Site data include:

AQS Site Number

The AQS Site Number includes a numerical designation for state, county and individual site and is required to be listed in the plan by 40 C.F.R. § 58.10(b)(1). The state and county codes are assigned a number based on the alphabetical order of the state or county. In most counties, site numbers are assigned sequentially by date established. St. Louis County sites also have a division for municipality within St. Louis County.

Address and Geographical Coordinates

The official post office address of the lot where the monitors are located. Because not all sites are located in cities or towns, the street address is occasionally given as the intersection of the nearest streets or highways.

The geographical coordinate system used by the department is latitude and longitude.

The Address and Geographical Coordinates are required to be listed in the plan by 40 C.F.R. § 58.10(b)(2).

Air Quality Control Region

Air Quality Control Regions (AQCR) are defined by EPA and designate either urban regions, like St. Louis or Kansas City, or rural sections of a state, such as northeast or southwest Missouri. The AQCR is required to be listed in the plan by 40 C.F.R. § 58.10(b)(8).

AQCR	AQCR Name
070	Metropolitan St. Louis
094	Metropolitan Kansas City
137	Northern Missouri
138	Southeast Missouri
139	Southwest Missouri

Core Based Statistical Area

Core Based Statistical Areas (CBSA) are defined by the U.S. Census Bureau. The CBSA is required to be listed in the plan by 40 C.F.R. § 58.10(b)(8).

CBSA Code	CBSA Name
00000	Not in a CBSA
16020	Cape Girardeau-Jackson, Missouri-Illinois
17860	Columbia, Missouri
22100	Farmington, Missouri
27620	Jefferson City, Missouri
27900	Joplin, Missouri-Kansas
28140	Kansas City, Missouri-Kansas
41140	St. Joseph, Missouri-Kansas
41180	St. Louis, Missouri-Illinois
44180	Springfield, Missouri

Monitor Data

Each monitor is designed to detect a specific chemical pollutant or group of related pollutants. A site may have one or many monitors and not all sites will have the same monitors. Monitor data include:

Parameter Description

The common name of the parameter. The common name has a Parameter Code. The Parameter Description is required to be listed in the plan by 40 C.F.R. § 58.10(b)(3).

Method Description

A description of the analysis methodology, averaging methodology, and/or the device used to measure a parameter. The Method Description is required to be listed in the plan by 40 C.F.R. § 58.10(b)(3).

AQS Monitor Type

The monitor's administrative classification is determined by the purpose for the monitor in the agency sampling strategy. Assignment of monitor types “NCORE” and “PAMS” is limited to EPA headquarters and is done only after a complete review and approval for all site or monitor metadata. The AQS Monitor Type is required to be listed in the plan by 40 C.F.R. § 58.10(b)(6).

Code	Description
INDUSTRIAL	Sites Operated by Industry
NATTS	National Air Toxics Trends Station
NCORE	National Core Monitoring Station
PAMS	Photochemical Assessment Monitoring Stations
SLAMS	State or Local Air Monitoring Station
SPECIAL PURPOSE	Special Purpose Monitoring Station (SPM)

AQS Monitor Objective

The monitoring objective is specific to the pollutant. Some sites may have more than one monitoring objective, but the primary objective is listed first. The AQS Monitor Objective is required to be listed in the plan by 40 C.F.R. § 58.10(b)(6).

Scale

Each monitor is intended to represent an area with similar pollutant concentration. The scales range from only a few meters to many kilometers. Meteorological parameters and indoor temperature parameters do not have scales and are listed as N/A. The Scale is required to be listed in the plan by 40 C.F.R. § 58.10(b)(6).

MIC **Microscale** - Defines the concentration in air volumes associated with area dimensions ranging from several meters up to about 100 meters.

MID **Middle** - Defines the concentration typical of areas up to several city blocks in size with dimensions ranging from about 100 meters to 0.5 kilometers.

NBR **Neighborhood** - Defines concentrations within an extended area of a city that has relatively uniform land use with dimensions of 0.5 to 4.0 kilometers.

URB **Urban** - Defines an overall citywide condition with dimensions on the order of 4 to 50 kilometers.

REG **Regional** - Defines air quality levels over areas having dimensions of tens to hundreds of kilometers.

Collocated

Collocated monitors are used for precision and quality assurance activities, and for redundancy for critical pollutants such as ozone.

Parameter Occurrence Code

The Parameter Occurrence Code (POC) distinguishes between different monitors for the same pollutant, most often collocated monitors used for precision and quality assurance. For $PM_{2.5}$, different parameter occurrence codes are assigned to FRM, collocated FRM, continuous and speciation monitors.

Frequency

Sampling frequency varies for each pollutant, depending on the nature of the NAAQS and the technology used in the monitoring method. Most gaseous pollutants, $PM_{2.5}$ and PM_{10} monitors use continuous monitoring FEM methods and are averaged over one hour. Some particulate pollutants are filter-based FRM methods and averaged over one day.

1 Continuous sampling.
1/1 24-hour samples collected each day.
1/3 24-hour samples collected every third day.
1/6 24-hour samples collected every sixth day.

The Frequency is required to be listed in the plan by 40 C.F.R. § 58.10(b)(4).

Parameter Code

Each parameter has a unique numerical code used in AQS. The code has a common name known as a Parameter Description. The Parameter Code is required to be listed in the plan by 40 C.F.R. § 58.10(b)(3).

Method Code

Each monitor relies on a scientific principle to determine the pollutant concentration, which is described by the sampling method. Each method code is specific for a particular pollutant; therefore, a three numeral code may be used for different methods for different pollutants. The Method Code is required to be listed in the plan by 40 C.F.R. § 58.10(b)(3).

Units

The physical terms used to quantify the pollutant concentration, such as parts per million or micrograms per cubic meter.

Unit Code	Unit Description
001	micrograms per cubic meter (μg/m^3)
007	parts per million (ppm)
008	parts per billion (ppb)
011	meters per second (m/s)
012	miles per hour (mph)
014	degrees, compass (deg)
016	millibars
017	degrees Celsius (deg C)
019	percent humidity (% humidity)
021	inches
059	millimeters of mercury (mm (Hg))
078	parts per billion as carbon (ppbC)
079	watts per meter squared (W/m^2)
105	micrograms per cubic meter local conditions (μg/m^3-LC)
108	nanograms per cubic meter local conditions (ng/m^3-LC)
116	degrees Celsius temperature difference (Temp Diff deg C)

Appendix 1: Missouri Monitoring Network Description

Site Name: Alba
AQS Site Number: 29-097-0004
Address: 20400 Millwood Road, Alba, MO, 64830
Latitude: 37.2385
Longitude: -94.42468
Agency: Environmental Services Program
Primary Quality Assurance Organization: 0588
Air Quality Control Region (AQCR) Name: SW Missouri
Core Based Statistical Area (CBSA) Name: Joplin, MO
AQCR ID: 139
CBSA ID: 27900

Parameter Description	Method Description	AQS Monitor Type	AQS Monitor Objective	Scale	Collocated	POC	Frequency	Parameter Code	Method Code	Unit Code	Unit Description
Indoor Temperature	Electronic Averaging	SPM	Other	N/A	NO	1	1	62107	013	017	deg C
Ozone	Ultraviolet Photometric	SLAMS	Max Ozone Concentration & Population Exposure	NBR	NO	1	1	44201	047	007	ppm
Ozone	Ultraviolet Photometric	SLAMS	Not Applicable	NBR	YES	2	1	44201	047	007	ppm

Site Name: Arnold West
AQS Site Number: 29-099-0019
Address: 1709 Lonedell Drive, Arnold, MO, 63010
Latitude: 38.44862
Longitude: -90.3958
Agency: Environmental Services Program
Primary Quality Assurance Organization: 0588
Air Quality Control Region (AQCR) Name: Metropolitan St. Louis
Core Based Statistical Area (CBSA) Name: St. Louis, MO-IL
AQCR ID: 070
CBSA ID: 41180

Parameter Description	Method Description	AQS Monitor Type	AQS Monitor Objective	Scale	Collocated	POC	Frequency	Parameter Code	Method Code	Unit Code	Unit Description
Ammonium Ion PM2.5 LC	Met One SASS Nylon	SLAMS	Population Exposure (UC-Davis)	NBR	NO	6	1/6	88301	812	105	µg/m^3-LC
Barometric Pressure	Instrumental-Barometric Sensor	SPM	Other	N/A	NO	1	1	64101	014	059	mm (Hg)
Indoor Temperature	Electronic Averaging	SPM	Other	N/A	NO	1	1	62107	013	017	deg C
Nitric Oxide	Teledyne API Model N500	SPM	Population Exposure	NBR	NO	3	H	42601	256	008	ppb
Nitrogen Dioxide	Teledyne API Model N500	SPM	Population Exposure	NBR	NO	3	H	42602	256	008	ppb
OP CSN_Rev Undj PM2.5 LC TOR	URG 3000N w/Pall Quartz filter & Cyclone Inlet	SLAMS	Population Exposure (UC-Davis)	NBR	NO	6	1/6	88378	842	105	µg/m^3-LC
Outdoor Temperature	Electronic Averaging	SPM	Other (4m Probe Height)	N/A	NO	1	1	62101	040	017	deg C
Oxides of Nitrogen (Nox)	Teledyne API Model N500	SPM	Population Exposure	NBR	NO	3	H	42603	256	008	ppb
Ozone	Ultraviolet Photometric	SLAMS	Population Exposure	NBR	NO	1	1	44201	047	007	ppm
Ozone	Ultraviolet Photometric	SLAMS	N/A	NBR	YES	2	1	44201	047	007	ppm
PM10 - STP FRM/FEM	R&P SA246B TEOM	SLAMS	Population Exposure	NBR	NO	3	1	81102	079	001	µg/m^3
PM2.5 - LC FRM/FEM	PM2.5 VSCC FEM or Thermo Scientific 1405-F	SLAMS	Population Exposure	NBR	NO	4	1	88101	581	105	µg/m^3-LC
Relative Humidity	Instrumental-Computed (Indirect)	SPM	Other	N/A	NO	1	1	62201	020	019	% humidity
Wind Direction - Resultant	Instrumental: RM Young Model 05305	SPM	Other (10m Tower)	N/A	NO	1	1	61104	065	014	deg
Wind Speed - Resultant	Instrumental: RM Young Model 05305	SPM	Other (10m Tower)	N/A	NO	1	1	61103	065	012	mph

Site Name: Blair Street
AQS Site Number: 29-510-0085
Address: 3247 Blair Street, Saint Louis, MO, 63107
Latitude: 38.65638
Longitude: -90.19825
Agency: Environmental Services Program
Primary Quality Assurance Organization: 0588
Air Quality Control Region (AQCR) Name: Metropolitan St. Louis
Core Based Statistical Area (CBSA) Name: St. Louis, MO-IL
AQCR ID: 070
CBSA ID: 41180

Parameter Description	Method Description	AQS Monitor Type	AQS Monitor Objective	Scale	Collocated	POC	Frequency	Parameter Code	Method Code	Unit Code	Unit Description
1,2,3-trimethylbenzene	CAS Auto-Gas Chromatograph	PAMS	Max precursor emissions impact	URB	NO	1	1	45225	221	078	ppbC
1,2,4-trimethylbenzene	CAS Auto-Gas Chromatograph	PAMS	Max precursor emissions impact	URB	NO	1	1	45208	221	078	ppbC
1-butene	CAS Auto-Gas Chromatograph	PAMS	Max precursor emissions impact	URB	NO	1	1	43280	222	078	ppbC
2,2,4-trimethylpentane	CAS Auto-Gas Chromatograph	PAMS	Max precursor emissions impact	URB	NO	1	1	43250	221	078	ppbC
Acetaldehyde	SILICA-DNPH-CART-KI O3 SCRUB	PAMS	Max precursor emissions impact	URB	NO	1	1	43503	202	078	ppbC
Ammonium Ion PM2.5 LC	Met One SASS Nylon	SPM	Not Applicable	NBR	NO	6	1/3	88301	812	105	µg/m^3-LC
Barometric Pressure	Instrumental-Barometric Sensor	PAMS	Other	NBR	NO	1	1	64101	014	059	mm (Hg)
Benzene	CAS Auto-Gas Chromatograph	PAMS	Max precursor emissions impact	URB	NO	6	1	45201	221	078	ppbC
Black Carbon PM2.5 LC	Magee Scientific TAPI M633 Aethalometer	SLAMS	Population Exposure	NBR	NO	1	1	88313	894	105	µg/m^3-LC
Carbon Monoxide	Teledyne T300U	NCORE	Population Exposure	NBR	NO	1	1	42101	593	007	ppm
cis-2-butene	CAS Auto-Gas Chromatograph	PAMS	Max precursor emissions impact	URB	NO	1	1	43217	222	078	ppbC
Ethane	CAS Auto-Gas Chromatograph	PAMS	Max precursor emissions impact	URB	NO	1	1	43202	222	078	ppbC
Ethylbenzene	CAS Auto-Gas Chromatograph	PAMS	Max precursor emissions impact	URB	NO	1	1	45203	221	078	ppbC
Ethylene	CAS Auto-Gas Chromatograph	PAMS	Max precursor emissions impact	URB	NO	1	1	43203	222	078	ppbC
Formaldehyde	SILICA-DNPH-CART-KI O3 SCRUB	PAMS	Max precursor emissions impact	URB	NO	1	1	43502	202	078	ppbC
Indoor Temperature	Electronic Averaging	PAMS	Other (Large Shelter)	N/A	NO	1	1	62107	013	017	deg C
Indoor Temperature	Electronic Averaging	PAMS	Other (Small Shelter)	N/A	NO	2	1	62107	013	017	deg C
Isobutane	CAS Auto-Gas Chromatograph	PAMS	Max precursor emissions impact	URB	NO	1	1	43214	222	078	ppbC
Isopentane	CAS Auto-Gas Chromatograph	PAMS	Max precursor emissions impact	URB	NO	1	1	43221	222	078	ppbC
Isoprene	CAS Auto-Gas Chromatograph	PAMS	Max precursor emissions impact	URB	NO	1	1	43243	222	078	ppbC

Site Name: Blair Street
AQS Site Number: 29-510-0085
Address: 3247 Blair Street, Saint Louis, MO, 63107
Latitude: 38.65638
Longitude: -90.19825
Agency: Environmental Services Program
Primary Quality Assurance Organization: 0588
Air Quality Control Region (AQCR) Name: Metropolitan St. Louis
Core Based Statistical Area (CBSA) Name: St. Louis, MO-IL
AQCR ID: 070
CBSA ID: 41180

Parameter Description	Method Description	AQS Monitor Type	AQS Monitor Objective	Scale	Collocated	POC	Frequency	Parameter Code	Method Code	Unit Code	Unit Description
Lead PM10 LC	R&P Partisol 2025 Teflon	SPM	Population Exposure (ERG)	NBR	NO	6	1/6	85128	907	108	ng/m^3-LC
Lead PM10 LC	R&P Partisol 2025 Teflon	SPM	Population Exposure (ERG)	NBR	YES	7	1/6	85128	907	108	ng/m^3-LC
M&P-xylenes	CAS Auto-Gas Chromatograph	PAMS	Max precursor emissions impact	URB	NO	1	1	45109	221	078	ppbC
M-ethyltoluene	CAS Auto-Gas Chromatograph	PAMS	Max precursor emissions impact	URB	NO	1	1	45212	221	078	ppbC
N-butane	CAS Auto-Gas Chromatograph	PAMS	Max precursor emissions impact	URB	NO	1	1	43212	222	078	ppbC
N-hexane	CAS Auto-Gas Chromatograph	PAMS	Max precursor emissions impact	URB	NO	1	1	43231	222	078	ppbC
Nitric Oxide	Teledyne API 200 EU/501	NCORE	Population Exposure	NBR	NO	1	1	42601	699	008	ppb
Nitric Oxide	Teledyne API Model N500	SLAMS	Population Exposure	NBR	NO	3	1	42601	256	008	ppb
Nitrogen Dioxide	Teledyne API Model N500	SLAMS	Population Exposure	NBR	NO	3	1	42602	256	008	ppb
N-pentane	CAS Auto-Gas Chromatograph	PAMS	Max precursor emissions impact	URB	NO	1	1	43220	222	078	ppbC
O-ethyltoluene	CAS Auto-Gas Chromatograph	PAMS	Max precursor emissions impact	URB	NO	1	1	45211	221	078	ppbC
o-oxlene	CAS Auto-Gas Chromatograph	PAMS	Max precursor emissions impact	URB	NO	1	1	45204	221	078	ppbC
OP CSN_Rev Undj PM2.5 LC TOR	URG 3000N w/Pall Quartz filter & Cyclone Inlet	SPM	Highest Concentration (UC-Davis)	NBR	NO	6	1/3	88378	842	105	µg/m^3-LC
Outdoor Temperature	RM Young	NCORE	Other (4m Probe Height)	NBR	NO	1	1	62101	130	017	deg C
Oxides of Nitrogen (Nox)	Teledyne API Model N500	SLAMS	Population Exposure	NBR	NO	3	1	42603	256	008	ppb
Ozone	Ultraviolet Absorption	NCORE	Population Exposure	NBR	NO	1	1	44201	087	007	ppm
Ozone	Ultraviolet Absorption	NCORE	Not Applicable	NBR	YES	2	1	44201	087	007	ppm
p-ethyltoluene	CAS Auto-Gas Chromatograph	PAMS	Max precursor emissions impact	URB	NO	1	1	45213	221	078	ppbC
PM10 - LC/FEM/NonFEM	Teledyne API T640x	SPM	Population Exposure	NBR	NO	6	1	85101	639	105	ug/m^3-LC
PM10 - STP FRM/FEM	Teledyne API T640x	SLAMS	Population Exposure	NBR	NO	6	1	81102	639	001	ug/m^3

Site Name: Blair Street
AQS Site Number: 29-510-0085
Address: 3247 Blair Street, Saint Louis, MO, 63107
Latitude: 38.65638
Longitude: -90.19825
Agency: Environmental Services Program
Primary Quality Assurance Organization: 0588
Air Quality Control Region (AQCR) Name: Metropolitan St. Louis
Core Based Statistical Area (CBSA) Name: St. Louis, MO-IL
AQCR ID: 070
CBSA ID: 41180

Parameter Description	Method Description	AQS Monitor Type	AQS Monitor Objective	Scale	Collocated	POC	Frequency	Parameter Code	Method Code	Unit Code	Unit Description
PM2.5 - LC FRM/FEM	PM2.5 VSCC FEM or Thermo Scientific 1405-F	SLAMS	Population Exposure	NBR	NO	4	1	88101	581	105	µg/m^3-LC
PM2.5 - LC FRM/FEM	Teledyne API T640x	SPM	Population Exposure	NBR	NO	6	1	88101	638	105	µg/m^3-LC
PM2.5 - LC FRM/FEM	R&P 2025 Sequential w/VSCC	NCORE	Quality Assurance (Collocation)	NBR	YES	2	1/3	88101	145	105	µg/m^3-LC
PMCoarse - LC FRM/FEM	Teledyne API T640x	NCORE	Population Exposure	NBR	NO	6	1	86101	640	105	µg/m^3-LC
Precipitation	Heated Tipping Bucket	PAMS	Max precursor emissions impact	NBR	NO	1	1	65102	014	021	inches
Propylene	CAS Auto-Gas Chromatograph	PAMS	Max precursor emissions impact	URB	NO	1	1	43205	222	078	ppbC
Reactive Oxides of N (Noy)	Teledyne API 200 EU/501	NCORE	Population Exposure	NBR	NO	1	1	42600	699	008	ppb
Relative Humidity	RM Young	NCORE	Other	N/A	NO	1	1	62201	130	019	% humidity
Solar Radiation	Instrumental-Pyranometer	PAMS	Other	N/A	NO	1	1	63301	011	079	W/m^2
Std Dev Hz Wind Direction	Arithmetic Standard Deviation	PAMS	Other (10m Tower)	N/A	NO	1	1	61106	020	014	deg
Styrene	CAS Auto-Gas Chromatograph	PAMS	Max precursor emissions impact	URB	NO	1	1	45220	221	078	ppbC
Sulfur Dioxide	Pulsed Fluorescent 43i-TLE	NCORE	Population Exposure	NBR	NO	1	1	42401	560	008	ppb
Sulfur Dioxide Max 5-min Avg	Pulsed Fluorescent	NCORE	Population Exposure	NBR	NO	1	1	42406	560	008	ppb
Toluene	CAS Auto-Gas Chromatograph	PAMS	Max precursor emissions impact	URB	NO	1	1	45202	221	078	ppbC
Trans-2-butene	CAS Auto-Gas Chromatograph	PAMS	Max precursor emissions impact	URB	NO	1	1	43216	222	078	ppbC
Ultraviolet Radiation	UV Radiometer (Photometer)	PAMS	Max precursor emissions impact	NBR	NO	1	1	63302	011	079	W/m^2
UV Carbon PM2.5 LC	Magee Scientific TAPI M633 Aethalometer	SLAMS	Population Exposure	NBR	NO	1	1	88314	894	105	ug/m^3-LC
Wind Direction - Resultant	Instrumental: RM Young Model 05305	PAMS	Other (10m Tower)	N/A	NO	1	1	61104	065	014	deg
Wind Speed - Resultant	Instrumental: RM Young Model 05305	PAMS	Other (10m Tower)	N/A	NO	1	1	61103	065	012	mph

Site Name: Bonne Terre
AQS Site Number: 29-186-0005
Address: 15797 Highway D, Bonne Terre, MO, 63628
Latitude: 37.90084
Longitude: -90.42388
Agency: Environmental Services Program
Primary Quality Assurance Organization: 0588
Air Quality Control Region (AQCR) Name: SE Missouri
Core Based Statistical Area (CBSA) Name: Not in an MSA
AQCR ID: 138
CBSA ID: 00000

Parameter Description	Method Description	AQS Monitor Type	AQS Monitor Objective	Scale	Collocated	POC	Frequency	Parameter Code	Method Code	Unit Code	Unit Description
Indoor Temperature	Electronic Averaging	SPM	Other	N/A	NO	1	1	62107	013	017	deg C
Ozone	Ultraviolet Photometric	SLAMS	Regional Transport	REG	NO	1	1	44201	047	007	ppm
Ozone	Ultraviolet Photometric	SLAMS	Not Applicable	REG	YES	2	1	44201	047	007	ppm
Solar Radiation	Instrumental-Pyranometer	SPM	Other	N/A	NO	1	1	63301	011	079	W/m^2

Site Name: Branch Street
AQS Site Number: 29-510-0093
Address: 100 Branch Street, Saint Louis, MO, 63102
Latitude: 38.65643
Longitude: -90.18977
Agency: Environmental Services Program
Primary Quality Assurance Organization: 0588
Air Quality Control Region (AQCR) Name: Metropolitan St. Louis
Core Based Statistical Area (CBSA) Name: St. Louis, MO-IL
AQCR ID: 070
CBSA ID: 41180

Parameter Description	Method Description	AQS Monitor Type	AQS Monitor Objective	Scale	Collocated	POC	Frequency	Parameter Code	Method Code	Unit Code	Unit Description
Barometric Pressure	Instrumental-Barometric Sensor	SPM	Other	N/A	NO	1	1	64101	014	059	mm (Hg)
Indoor Temperature	Electronic Averaging	SPM	Other	N/A	NO	1	1	62107	013	017	deg C
Outdoor Temperature	Electronic Averaging	SPM	Other (4m Probe Height)	N/A	NO	1	1	62101	040	017	deg C
PM10 - LC/FEM/NonFEM	Teledyne API T640x	SPM	Source Oriented	NBR	NO	6	1	85101	639	105	µg/m^3-LC
PM10 - STP FRM/FEM	Teledyne API T640x	SLAMS	Source Oriented	MID	NO	6	1	81102	639	105	µg/m^3-LC
PM2.5 - LC FRM/FEM	PM2.5 VSCC FEM or Thermo Scientific 1405-F	SLAMS	Source Oriented	MID	NO	4	1	88101	581	105	µg/m^3-LC
PM2.5 - LC FRM/FEM	Teledyne API T640x	SPM	Source Oriented	NBR	NO	6	1	88101	638	105	µg/m^3-LC
Relative Humidity	Instrumental-Computed (Indirect)	SPM	Other	N/A	NO	1	1	62201	020	019	% humidity
Std Dev Hz Wind Direction	Arithmetic Standard Deviation	SPM	Other (10m Tower)	N/A	NO	1	1	61106	020	014	deg
Wind Direction - Resultant	Instrumental: RM Young Model 05305	SPM	Other (10m Tower)	N/A	NO	1	1	61104	065	014	deg
Wind Speed - Resultant	Instrumental: RM Young Model 05305	SPM	Other (10m Tower)	N/A	NO	1	1	61103	065	012	mph

Site Name: Buick NE
AQS Site Number: 29-093-0034
Address: 346 Power Lane, Bixby West, MO, 65439
Latitude: 37.65212
Longitude: -91.11653
Agency: Environmental Services Program
Primary Quality Assurance Organization: 0588
Air Quality Control Region (AQCR) Name: SE Missouri
Core Based Statistical Area (CBSA) Name: Not in a CBSA
AQCR ID: 138
CBSA ID: 00000

Parameter Description	Method Description	AQS Monitor Type	AQS Monitor Objective	Scale	Collocated	POC	Frequency	Parameter Code	Method Code	Unit Code	Unit Description
Indoor Temperature	Electronic Averaging	SPM	Other	N/A	NO	1	1	62107	013	017	deg C
Lead (TSP) - LC FRM/FEM	Inductively Coupled Plasma Mass Spectroscopy	SLAMS	Source Oriented & Highest Concentration	MID	NO	1	1/6	14129	813	105	µg/m^3-LC
Lead (TSP) - LC FRM/FEM	Inductively Coupled Plasma Mass Spectroscopy	SLAMS	Quality Assurance (Collocation)	MID	YES	2	1/6	14129	813	105	µg/m^3-LC
Sulfur Dioxide	Pulsed Fluorescent	SPM	Source Oriented	MID	NO	1	1	42401	060	008	ppb
Sulfur Dioxide Max 5-min Avg	Pulsed Fluorescent	SPM	Source Oriented	MID	NO	1	1	42406	060	008	ppb
Wind Direction - Resultant	Instrumental: RM Young Model 05305	SPM	Other (10 meters)	NBR	NO	1	1	61104	065	014	deg
Wind Speed - Resultant	Instrumental: RM Young Model 05305	SPM	Other (10 meters)	NBR	NO	1	1	61103	065	012	mph

Site Name: Carthage
AQS Site Number: 29-097-0003
Address: 530 Juniper, Carthage, MO, 64836
Latitude: 37.19822
Longitude: -94.31702
Agency: Environmental Services Program
Primary Quality Assurance Organization: 0588
Air Quality Control Region (AQCR) Name: SW Missouri
Core Based Statistical Area (CBSA) Name: Joplin, MO
AQCR ID: 139
CBSA ID: 27900

Parameter Description	Method Description	AQS Monitor Type	AQS Monitor Objective	Scale	Collocated	POC	Frequency	Parameter Code	Method Code	Unit Code	Unit Description
Indoor Temperature	Electronic Averaging	SPM	Other	N/A	NO	1	1	62107	013	017	deg C
PM10 - STP FRM/FEM	R&P SA246B TEOM	SLAMS	Source Oriented	MID	NO	3	1	81102	079	001	µg/m^3
PM10 - STP FRM/FEM	R&P SA246B TEOM	SLAMS	Quality Assurance (Collocation)	MID	YES	4	1	81102	079	001	µg/m^3
Wind Direction - Resultant	Instrumental: RM Young Model 05305	SPM	Other (5.5 meters)	N/A	NO	1	1	61104	065	014	deg
Wind Speed - Resultant	Instrumental: RM Young Model 05305	SPM	Other (5.5 meters)	N/A	NO	1	1	61103	065	012	mph

Site Name: Dunklin High School
AQS Site Number: 29-099-0005
Address: 1 Black Cat Drive, Herculaneum, MO, 63048
Latitude: 38.26703
Longitude: -90.37875
Agency: Environmental Services Program
Primary Quality Assurance Organization: 0588
Air Quality Control Region (AQCR) Name: Metropolitan St. Louis
Core Based Statistical Area (CBSA) Name: St. Louis, MO-IL
AQCR ID: 070
CBSA ID: 41180

Parameter Description	Method Description	AQS Monitor Type	AQS Monitor Objective	Scale	Collocated	POC	Frequency	Parameter Code	Method Code	Unit Code	Unit Description
Lead (TSP) - LC FRM/FEM	Inductively Coupled Plasma Mass Spectroscopy	SLAMS	Source Oriented	NBR	NO	1	1/6	14129	813	105	µg/m^3-LC

Site Name: El Dorado Springs
AQS Site Number: 29-039-0001
Address: Highway 97 & Barnes Road, El Dorado Springs, MO, 64744
Latitude: 37.70097
Longitude: -94.03474
Agency: Environmental Services Program
Primary Quality Assurance Organization: 0588
Air Quality Control Region (AQCR) Name: SW Missouri
Core Based Statistical Area (CBSA) Name: Not in a CBSA
AQCR ID: 139
CBSA ID: 00000

Parameter Description	Method Description	AQS Monitor Type	AQS Monitor Objective	Scale	Collocated	POC	Frequency	Parameter Code	Method Code	Unit Code	Unit Description
Barometric Pressure	Instrumental-Barometric Sensor	SPM	Other	N/A	NO	1	1	64101	014	059	mm (Hg)
Indoor Temperature	Electronic Averaging	SPM	Other	N/A	NO	1	1	62107	013	017	deg C
Outdoor Temperature	Electronic Averaging	SPM	Other (4m Probe Height)	N/A	NO	1	1	62101	040	017	deg C
Ozone	Ultraviolet Photometric	SLAMS	Regional Transport	REG	NO	1	1	44201	047	007	ppm
Ozone	Ultraviolet Photometric	SLAMS	N/A	REG	YES	2	1	44201	047	007	ppm
PM2.5 - LC FRM/FEM	PM2.5 VSCC FEM or Thermo Scientific 1405-F	SLAMS	Regional Transport	REG	NO	4	1	88101	581	105	µg/m^3-LC
Relative Humidity	Instrumental-Computed (Indirect)	SPM	Other	N/A	NO	2	1	62201	020	019	% humidity
Wind Direction - Resultant	Instrumental: RM Young Model 05305	SPM	Other (5.5 meters)	N/A	NO	1	1	61104	065	014	deg
Wind Speed - Resultant	Instrumental: RM Young Model 05305	SPM	Other (5.5 meters)	N/A	NO	1	1	61103	065	012	mph

Site Name: Farrar
AQS Site Number: 29-157-0001
Address: County Road 342, Farrar, MO, 63746
Latitude: 37.70264
Longitude: -89.698640
Agency: Environmental Services Program
Primary Quality Assurance Organization: 0588
Air Quality Control Region (AQCR) Name: SE Missouri
Core Based Statistical Area (CBSA) Name: Not in a CBSA
AQCR ID: 138
CBSA ID: 00000

Parameter Description	Method Description	AQS Monitor Type	AQS Monitor Objective	Scale	Collocated	POC	Frequency	Parameter Code	Method Code	Unit Code	Unit Description
Indoor Temperature	Electronic Averaging	SPM	Other	N/A	NO	1	1	62107	013	017	deg C
Ozone	Ultraviolet Photometric	SLAMS	Max Ozone Concentration & Extreme Downwind	NBR	NO	1	1	44201	047	007	ppm
Ozone	Ultraviolet Photometric	SLAMS	Not Applicable	NBR	YES	2	1	44201	047	007	ppm

Site Name: Fellows Lake
AQS Site Number: 29-077-0042
Address: 4208 East Farm Road 66, Springfield, MO, 65803
Latitude: 37.319254
Longitude: -93.214758
Agency: Environmental Services Program
Primary Quality Assurance Organization: 0588
Air Quality Control Region (AQCR) Name: SW Missouri
Core Based Statistical Area (CBSA) Name: Springfield, MO
AQCR ID: 139
CBSA ID: 44180

Parameter Description	Method Description	AQS Monitor Type	AQS Monitor Objective	Scale	Collocated	POC	Frequency	Parameter Code	Method Code	Unit Code	Unit Description
Indoor Temperature	Electronic Averaging	SPM	Other	N/A	NO	1	1	62107	013	017	deg C
Ozone	Ultraviolet Photometric	SLAMS	Max Ozone Concentration & Population Exposure	URB	NO	1	1	44201	047	007	ppm
Ozone	Ultraviolet Photometric	SLAMS	N/A	URB	YES	2	1	44201	047	007	ppm

Site Name: Finger Lakes
AQS Site Number: 29-019-0011
Address: 1505 East Peabody Road, Columbia, MO, 65202
Latitude: 39.07803
Longitude: -92.31632
Agency: Environmental Services Program
Primary Quality Assurance Organization: 0588
Air Quality Control Region (AQCR) Name: Northern Missouri
Core Based Statistical Area (CBSA) Name: Columbia, MO
AQCR ID: 137
CBSA ID: 17860

Parameter Description	Method Description	AQS Monitor Type	AQS Monitor Objective	Scale	Collocated	POC	Frequency	Parameter Code	Method Code	Unit Code	Unit Description
Indoor Temperature	Electronic Averaging	SPM	Other	N/A	NO	1	1	62107	013	017	deg C
Ozone	Ultraviolet Photometric	SLAMS	Max Ozone Concentration & Population Exposure	NBR	NO	1	1	44201	047	007	ppm
Ozone	Ultraviolet Photometric	SLAMS	N/A	NBR	YES	2	1	44201	047	007	ppm

Site Name: Foley West
AQS Site Number: 29-113-0004
Address: 2100 Highway Y Foley, Foley, MO, 63347
Latitude: 39.04577
Longitude: -90.84927
Agency: Environmental Services Program
Primary Quality Assurance Organization: 0588
Air Quality Control Region (AQCR) Name: Northern Missouri
Core Based Statistical Area (CBSA) Name: St. Louis, MO-IL
AQCR ID: 137
CBSA ID: 41180

Parameter Description	Method Description	AQS Monitor Type	AQS Monitor Objective	Scale	Collocated	POC	Frequency	Parameter Code	Method Code	Unit Code	Unit Description
Indoor Temperature	Electronic Averaging	SPM	Other	N/A	NO	1	1	62107	013	017	deg C
Ozone	Ultraviolet Photometric	SLAMS	Extreme Downwind	NBR	NO	1	1	44201	047	007	ppm
Ozone	Ultraviolet Photometric	SLAMS	Not Applicable	NBR	YES	2	1	44201	047	007	ppm

Site Name: Forest City, Exide Levee
AQS Site Number: 29-087-0008
Address: 25942 Highway 111, Forest City, MO, 64451
Latitude: 40.027222
Longitude: -95.235833
Agency: Environmental Services Program
Primary Quality Assurance Organization: 0588
Air Quality Control Region (AQCR) Name: Northern Missouri
Core Based Statistical Area (CBSA) Name: Not in a CBSA
AQCR ID: 137
CBSA ID: 00000

Parameter Description	Method Description	AQS Monitor Type	AQS Monitor Objective	Scale	Collocated	POC	Frequency	Parameter Code	Method Code	Unit Code	Unit Description
Lead (TSP) - LC FRM/FEM	Inductively Coupled Plasma Mass Spectroscopy	SLAMS	Source Oriented	MID	NO	1	1/6	14129	813	105	µg/m^3-LC

Site Name: Forest Park
AQS Site Number: 29-510-0094
Address: 5600 Clayton Avenue, Saint Louis, MO, 63110
Latitude: 38.63114
Longitude: -90.28115
Agency: Environmental Services Program
Primary Quality Assurance Organization: 0588
Air Quality Control Region (AQCR) Name: Metropolitan St. Louis
Core Based Statistical Area (CBSA) Name: St. Louis, MO-IL
AQCR ID: 070
CBSA ID: 41180

Parameter Description	Method Description	AQS Monitor Type	AQS Monitor Objective	Scale	Collocated	POC	Frequency	Parameter Code	Method Code	Unit Code	Unit Description
Barometric Pressure	Instrumental-Barometric Sensor	SPM	Other	N/A	NO	1	1	64101	014	059	mm (Hg)
Black Carbon PM2.5 LC	Magee Scientific TAPI M633 Aethalometer	SPM	Source Oriented	MIC	NO	1	1	88313	894	105	µg/m^3-LC
Carbon Monoxide	Gas Filter Corr Thermo Electron 48i TLE	SLAMS	Source Oriented	MIC	NO	1	1	42101	554	007	ppm
Indoor Temperature	Electronic Averaging	SPM	Other	N/A	NO	1	1	62107	013	017	deg C
Nitric Oxide	Teledyne API Model N500	SPM	Source Oriented	MIC	NO	3	1	42601	256	008	ppb
Nitrogen Dioxide	Teledyne API Model N500	SLAMS	Source Oriented	MIC	NO	3	1	42602	256	008	ppb
Outdoor Temperature	Electronic Averaging	SPM	Other (10m Probe Height)	N/A	NO	2	1	62101	040	017	deg C
Outdoor Temperature	Electronic Averaging	SPM	Other (2m Probe Height)	N/A	NO	3	1	62101	040	017	deg C
Outdoor Temperature	Electronic Averaging	SPM	Other (4m Probe Height)	N/A	NO	1	1	62101	040	017	deg C
Outdoor Temperature Diff	Instrumental: Elect or Mach Avg Lev 2-Lev1	SPM	Other (10m - 2m Probe Height)	N/A	NO	1	1	62106	041	116	Temp Diff deg C
Oxides of Nitrogen (Nox)	Teledyne API Model N500	SPM	Source Oriented	MIC	NO	3	1	42603	256	008	ppb
PM2.5 - LC FRM/FEM	PM2.5 VSCC FEM or Thermo Scientific 1405-F	SLAMS	Source Oriented	MIC	NO	4	1	88101	581	105	µg/m^3-LC
PM2.5 - LC FRM/FEM	Teledyne API T640	SPM	Source Oriented	MIC	NO	6	1	88101	636	105	µg/m^3-LC
Precipitation	Heated Tipping Bucket	SPM	Other	N/A	NO	1	1	65102	014	021	inches
Relative Humidity	Instrumental-Computed (Indirect)	SPM	Other	N/A	NO	1	1	62201	020	019	% humidity
Solar Radiation	Instrumental-Pyranometer	SLAMS	Other	N/A	NO	1	1	63301	011	079	W/m^2
Std Dev Hz Wind Direction	Arithmetic Standard Deviation	SPM	Other (10m Tower)	N/A	NO	1	1	61106	020	014	deg
UV Carbon PM2.5 LC	Magee Scientific TAPI M633 Aethalometer	SPM	Source Oriented	MIC	NO	1	1	88314	894	105	µg/m^3-LC
Wind Direction - Resultant	Instrumental: RM Young Model 05305	SPM	Other (10m Tower)	N/A	NO	1	1	61104	065	014	deg
Wind Speed - Resultant	Instrumental: RM Young Model 05305	SPM	Other (10m Tower)	N/A	NO	1	1	61103	065	012	mph

Site Name: Front Street
AQS Site Number: 29-095-0018
Address: 1331 North Jackson, Kansas City, MO, 64120
Latitude: 39.13198
Longitude: -94.52137
Agency: Environmental Services Program
Primary Quality Assurance Organization: 0588
Air Quality Control Region (AQCR) Name: Metropolitan Kansas City
Core Based Statistical Area (CBSA) Name: Kansas City, MO-KS
AQCR ID: 094
CBSA ID: 28140

Parameter Description	Method Description	AQS Monitor Type	AQS Monitor Objective	Scale	Collocated	POC	Frequency	Parameter Code	Method Code	Unit Code	Unit Description
Indoor Temperature	Electronic Averaging	SPM	Other	N/A	NO	1	1	62107	013	017	deg C
PM10 - STP FRM/FEM	R&P SA246B TEOM	SLAMS	Highest Concentration & Population Exposure	NBR	NO	3	1	81102	079	001	µg/m^3

Site Name: Herculaneum, Mott Street
AQS Site Number: 29-099-0027
Address: 747 Mott Street, Herculaneum, MO, 63048
Latitude: 38.263394
Longitude: -90.379667
Agency: Environmental Services Program
Primary Quality Assurance Organization: 0588
Air Quality Control Region (AQCR) Name: Metropolitan St. Louis
Core Based Statistical Area (CBSA) Name: St. Louis, MO-IL
AQCR ID: 070
CBSA ID: 41180

Parameter Description	Method Description	AQS Monitor Type	AQS Monitor Objective	Scale	Collocated	POC	Frequency	Parameter Code	Method Code	Unit Code	Unit Description
Indoor Temperature	Electronic Averaging	SPM	Other	N/A	NO	1	1	62107	013	017	deg C
Lead (TSP) - LC FRM/FEM	Inductively Coupled Plasma Mass Spectroscopy	SLAMS	Source Oriented & Highest Concentration	MID	NO	1	1/3	14129	813	105	µg/m^3-LC
Lead (TSP) - LC FRM/FEM	Inductively Coupled Plasma Mass Spectroscopy	SLAMS	Quality Assurance (Collocation)	MID	YES	2	1/6	14129	813	105	µg/m^3-LC
Sulfur Dioxide	Pulsed Fluorescent	SLAMS	Source Oriented & Highest Concentration	MID	NO	1	1	42401	060	008	ppb
Sulfur Dioxide Max 5-min Avg	Pulsed Fluorescent	SPM	Source Oriented & Highest Concentration	MID	NO	1	1	42406	060	008	ppb
Wind Direction - Resultant	Instrumental: RM Young Model 05305	SPM	Other (5.5 meters)	N/A	NO	1	1	61104	065	014	deg
Wind Speed - Resultant	Instrumental: RM Young Model 05305	SPM	Other (5.5 meters)	N/A	NO	1	1	61103	065	012	mph

Site Name: Hillcrest High School
AQS Site Number: 29-077-0036
Address: 3319 North Grant, Springfield, MO, 65803
Latitude: 37.25607
Longitude: -93.29970
Agency: Environmental Services Program
Primary Quality Assurance Organization: 0588
Air Quality Control Region (AQCR) Name: SW Missouri
Core Based Statistical Area (CBSA) Name: Springfield, MO
AQCR ID: 139
CBSA ID: 44180

Parameter Description	Method Description	AQS Monitor Type	AQS Monitor Objective	Scale	Collocated	POC	Frequency	Parameter Code	Method Code	Unit Code	Unit Description
Barometric Pressure	Instrumental-Barometric Sensor	SPM	Other	N/A	NO	1	1	64101	014	059	mm (Hg)
Indoor Temperature	Electronic Averaging	SPM	Other	N/A	NO	1	1	62107	013	017	deg C
Outdoor Temperature	Electronic Averaging	SPM	Other (4m Probe Height)	N/A	NO	1	1	62101	040	017	deg C
Ozone	Ultraviolet Photometric	SLAMS	Population Exposure	URB	NO	1	1	44201	047	007	ppm
Ozone	Ultraviolet Photometric	SLAMS	N/A	URB	YES	2	1	44201	047	007	ppm
PM10 - LC/FEM/NonFEM	Teledyne API T640x	SLAMS	Population Exposure	NBR	NO	6	1	85101	639	105	µg/m^3-LC
PM10 - STP FRM/FEM	Teledyne API T640x	SLAMS	Population Exposure	NBR	NO	6	1	81102	639	105	µg/m^3-LC
PM2.5 - LC FRM/FEM	PM2.5 VSCC FEM or Thermo Scientific 1405-F	SLAMS	Population Exposure	NBR	NO	4	1	88101	581	105	µg/m^3-LC
PM2.5 - LC FRM/FEM	Teledyne API T640x	SPM	Population Exposure	NBR	NO	6	1	88101	638	105	µg/m^3-LC
Relative Humidity	Instrumental-Computed (Indirect)	SPM	Other	N/A	NO	1	1	62201	020	019	% humidity

Site Name: Ladue
AQS Site Number: 29-189-3001
Address: 73 Hunter Avenue, Ladue, MO, 63124
Latitude: 38.65028
Longitude: -90.35021
Agency: Environmental Services Program
Primary Quality Assurance Organization: 0588
Air Quality Control Region (AQCR) Name: Metropolitan St. Louis
Core Based Statistical Area (CBSA) Name: St. Louis, MO-IL
AQCR ID: 070
CBSA ID: 41180

Parameter Description	Method Description	AQS Monitor Type	AQS Monitor Objective	Scale	Collocated	POC	Frequency	Parameter Code	Method Code	Unit Code	Unit Description
Barometric Pressure	Instrumental-Barometric Sensor	SPM	Other	N/A	NO	1	1	64101	014	059	mm (Hg)
Indoor Temperature	Electronic Averaging	SPM	Other	N/A	NO	1	1	62107	013	017	deg C
Outdoor Temperature	Electronic Averaging	SPM	Other (4m Probe Height)	N/A	NO	1	1	62101	040	017	deg C
PM2.5 - LC FRM/FEM	PM2.5 VSCC FEM or Thermo Scientific 1405-F	SLAMS	Population Exposure	NBR	NO	4	1	88101	581	105	ug/m^3-LC
Relative Humidity	Instrumental-Computed (Indirect)	SPM	Other	N/A	NO	1	1	62201	020	019	% humidity

Site Name: Liberty
AQS Site Number: 29-047-0005
Address: Highway 33 and County Home Road, Liberty, MO, 64068
Latitude: 39.30314
Longitude: -94.37678
Agency: Environmental Services Program
Primary Quality Assurance Organization: 0588
Air Quality Control Region (AQCR) Name: Metropolitan Kansas City
Core Based Statistical Area (CBSA) Name: Kansas City, MO-KS
AQCR ID: 094
CBSA ID: 28140

Parameter Description	Method Description	AQS Monitor Type	AQS Monitor Objective	Scale	Collocated	POC	Frequency	Parameter Code	Method Code	Unit Code	Unit Description
Barometric Pressure	Instrumental-Barometric Sensor	SPM	Other	N/A	NO	1	1	64101	014	059	mm (Hg)
Indoor Temperature	Electronic Averaging	SPM	Other	N/A	NO	1	1	62107	013	017	deg C
Outdoor Temperature	Electronic Averaging	SPM	Other (4m Probe Height)	N/A	NO	1	1	62101	040	017	deg C
Ozone	Ultraviolet Photometric	SLAMS	Population Exposure	NBR	NO	1	1	44201	047	007	ppm
Ozone	Ultraviolet Photometric	SLAMS	N/A	NBR	YES	2	1	44201	047	007	ppm
PM2.5 - LC FRM/FEM	PM2.5 VSCC FEM or Thermo Scientific 1405-F	SLAMS	Population Exposure	NBR	NO	4	1	88101	581	105	µg/m^3-LC
Relative Humidity	Instrumental-Computed (Indirect)	SPM	Other	N/A	NO	1	1	62201	020	019	% humidity
Solar Radiation	Instrumental-Pyranometer	SPM	Other	N/A	NO	1	1	63301	011	079	W/m^2

Site Name: Linden Hills
AQS Site Number: 29-095-0043
Address: 1076 East 103rd Street Kansas City, Kansas City, MO, 64131
Latitude: 38.940794
Longitude: -94.578508
Agency: Environmental Services Program
Primary Quality Assurance Organization: 0588
Air Quality Control Region (AQCR) Name: Metropolitan Kansas City
Core Based Statistical Area (CBSA) Name: Kansas City, MO-KS
AQCR ID: 094
CBSA ID: 28140

Parameter Description	Method Description	AQS Monitor Type	AQS Monitor Objective	Scale	Collocated	POC	Frequency	Parameter Code	Method Code	Unit Code	Unit Description
Barometric Pressure	Instrumental-Barometric Sensor	SPM	Other	N/A	NO	1	1	64101	014	059	mm (Hg)
Black Carbon PM2.5 LC	Magee Scientific TAPI M633 Aethalometer	SPM	Source Oriented	MIC	NO	1	1	88313	894	105	µg/m^3-LC
Carbon Monoxide	Gas Filter Corr Thermo Electron 48i TLE	SLAMS	Source Oriented	MIC	NO	1	1	42101	554	007	ppm
Indoor Temperature	Electronic Averaging	SPM	Other	N/A	NO	1	1	62107	013	017	deg C
Nitric Oxide	Teledyne API Model N500	SPM	Source Oriented	MIC	NO	3	1	42601	256	008	ppb
Nitrogen Dioxide	Teledyne API Model N500	SLAMS	Source Oriented	MIC	NO	3	1	42602	256	008	ppb
Outdoor Temperature	Electronic Averaging	SPM	Other (10m Probe Height)	N/A	NO	2	1	62101	040	017	deg C
Outdoor Temperature	Electronic Averaging	SPM	Other (2m Probe Height)	N/A	NO	3	1	62101	040	017	deg C
Outdoor Temperature	Electronic Averaging	SPM	Other (4m Probe Height)	N/A	NO	1	1	62101	040	017	deg C
Outdoor Temperature Diff	Instrumental: Elect or Mach Avg Lev 2-Lev1	SPM	Other (10m - 2m Probe Height)	N/A	NO	1	1	62106	041	116	Temp Diff deg C
Oxides of Nitrogen (Nox)	Teledyne API Model N500	SPM	Source Oriented	MIC	NO	3	1	42603	256	008	ppb
PM2.5 - LC FRM/FEM	PM2.5 VSCC FEM or Thermo Scientific 1405-F	SLAMS	Source Oriented	MIC	NO	4	1	88101	581	105	µg/m^3-LC
Precipitation	Heated Tipping Bucket	SPM	Other	N/A	NO	1	1	65102	014	021	inches
Relative Humidity	Instrumental-Computed (Indirect)	SPM	Other	N/A	NO	1	1	62201	020	019	% humidity
Solar Radiation	Instrumental-Pyranometer	SLAMS	Other	N/A	NO	1	1	63301	011	079	W/m^2
Std Dev Hz Wind Direction	Arithmetic Standard Deviation	SPM	Other (10m Tower)	N/A	NO	1	1	61106	020	014	deg
UV Carbon PM2.5 LC	Magee Scientific TAPI M633 Aethalometer	SPM	Source Oriented	MIC	NO	1	1	88314	894	105	µg/m^3-LC
Wind Direction - Resultant	Instrumental: RM Young Model 05305	SPM	Other (10m Tower)	N/A	NO	1	1	61104	065	014	deg
Wind Speed - Resultant	Instrumental: RM Young Model 05305	SPM	Other (10m Tower)	N/A	NO	1	1	61103	065	012	mph

Site Name: Mark Twain State Park
AQS Site Number: 29-137-0001
Address: 20057 State Park Office Road, Stoutsville, MO, 65283
Latitude: 39.474906
Longitude: -91.78878
Agency: Environmental Services Program
Primary Quality Assurance Organization: 0588
Air Quality Control Region (AQCR) Name: Northern Missouri
Core Based Statistical Area (CBSA) Name: Not in a CBSA
AQCR ID: 137
CBSA ID: 00000

Parameter Description	Method Description	AQS Monitor Type	AQS Monitor Objective	Scale	Collocated	POC	Frequency	Parameter Code	Method Code	Unit Code	Unit Description
Indoor Temperature	Electronic Averaging	SPM	Other	N/A	NO	1	1	62107	013	017	deg C
Nitric Oxide	Chemiluminescence	SPM	General/Background	REG	NO	1	1	42601	074	008	ppb
Nitrogen Dioxide	Chemiluminescence	SPM	General/Background	REG	NO	1	1	42602	074	008	ppb
Oxides of Nitrogen (Nox)	Chemiluminescence	SPM	General/Background	REG	NO	1	1	42603	074	008	ppb
Ozone	Ultraviolet Photometric	SLAMS	General/Background	REG	NO	1	1	44201	047	007	ppm
Ozone	Ultraviolet Photometric	SLAMS	Not Applicable	REG	YES	2	1	44201	047	007	ppm
PM10 - STP FRM/FEM	R&P SA246B TEOM	SPM	General/Background	REG	NO	3	1	81102	079	001	µg/m^3
Sulfur Dioxide	Ultra-violet Fluorescence	SPM	General/Background	REG	NO	1	1	42401	100	008	ppb
Sulfur Dioxide Max 5-min Avg	Ultra-violet Fluorescence	SPM	General/Background	REG	NO	1	1	42406	100	008	ppb
Wind Direction - Resultant	Instrumental: RM Young Model 05305	SPM	Other (10m Tower)	N/A	NO	1	1	61104	065	014	deg
Wind Speed - Resultant	Instrumental: RM Young Model 05305	SPM	Other (10m Tower)	N/A	NO	1	1	61103	065	012	mph

Site Name: Maryland Heights
AQS Site Number: 29-189-0014
Address: 13044 Marine Avenue, Maryland Heights, MO, 63146
Latitude: 38.71085
Longitude: -90.47606
Agency: Environmental Services Program
Primary Quality Assurance Organization: 0588
Air Quality Control Region (AQCR) Name: Metropolitan St. Louis
Core Based Statistical Area (CBSA) Name: St. Louis, MO-IL
AQCR ID: 070
CBSA ID: 41180

Parameter Description	Method Description	AQS Monitor Type	AQS Monitor Objective	Scale	Collocated	POC	Frequency	Parameter Code	Method Code	Unit Code	Unit Description
Indoor Temperature	Electronic Averaging	SPM	Other	N/A	NO	1	1	62107	013	017	deg C
Ozone	Ultraviolet Photometric	SLAMS	Population Exposure	NBR	NO	1	1	44201	047	007	ppm
Ozone	Ultraviolet Photometric	SLAMS	Not Applicable	NBR	YES	2	1	44201	047	007	ppm

Site Name: New Bloomfield
AQS Site Number: 29-027-0002
Address: 2625 Meadow Lake View, New Bloomfield, MO, 65063
Latitude: 38.70608
Longitude: -92.09308
Agency: Environmental Services Program
Primary Quality Assurance Organization: 0588
Air Quality Control Region (AQCR) Name: Northern Missouri
Core Based Statistical Area (CBSA) Name: Jefferson City, MO
AQCR ID: 137
CBSA ID: 27620

Parameter Description	Method Description	AQS Monitor Type	AQS Monitor Objective	Scale	Collocated	POC	Frequency	Parameter Code	Method Code	Unit Code	Unit Description
Indoor Temperature	Electronic Averaging	SPM	Other	N/A	NO	1	1	62107	013	017	deg C
Ozone	Ultraviolet Photometric	SLAMS	Max Ozone Concentration & Population Exposure	NBR	NO	1	1	44201	047	007	ppm
Ozone	Ultraviolet Photometric	SLAMS	N/A	NBR	YES	2	1	44201	047	007	ppm

Site Name: Oates
AQS Site Number: 29-179-0034
Address: 13155 Highway KK, Boss, MO, 65440
Latitude: 37.56485
Longitude: -91.11423
Agency: Environmental Services Program
Primary Quality Assurance Organization: 0588
Air Quality Control Region (AQCR) Name: SE Missouri
Core Based Statistical Area (CBSA) Name: Not in a CBSA
AQCR ID: 138
CBSA ID: 00000

Parameter Description	Method Description	AQS Monitor Type	AQS Monitor Objective	Scale	Collocated	POC	Frequency	Parameter Code	Method Code	Unit Code	Unit Description
Lead (TSP) - LC FRM/FEM	Inductively Coupled Plasma Mass Spectroscopy	SLAMS	Source Oriented	NBR	NO	1	1/6	14129	813	105	µg/m^3-LC

Site Name: Orchard Farm
AQS Site Number: 29-183-1004
Address: 2165 Highway V, St. Charles, MO, 63301
Latitude: 38.8994
Longitude: -90.44917
Agency: Environmental Services Program
Primary Quality Assurance Organization: 0588
Air Quality Control Region (AQCR) Name: Metropolitan St. Louis
Core Based Statistical Area (CBSA) Name: St. Louis, MO-IL
AQCR ID: 070
CBSA ID: 41180

Parameter Description	Method Description	AQS Monitor Type	AQS Monitor Objective	Scale	Collocated	POC	Frequency	Parameter Code	Method Code	Unit Code	Unit Description
Indoor Temperature	Electronic Averaging	SPM	Other	N/A	NO	1	1	62107	013	017	deg C
Ozone	Ultraviolet Photometric	SLAMS	Extreme Downwind	URB	NO	1	1	44201	047	007	ppm
Ozone	Ultraviolet Photometric	SLAMS	Not Applicable	URB	YES	2	1	44201	047	007	ppm

Site Name: Pacific
AQS Site Number: 29-189-0005
Address: 18701 Old Highway 66, Pacific, MO, 63069
Latitude: 38.49011
Longitude: -90.70509
Agency: Environmental Services Program
Primary Quality Assurance Organization: 0588
Air Quality Control Region (AQCR) Name: Metropolitan St. Louis
Core Based Statistical Area (CBSA) Name: St. Louis, MO-IL
AQCR ID: 070
CBSA ID: 41180

Parameter Description	Method Description	AQS Monitor Type	AQS Monitor Objective	Scale	Collocated	POC	Frequency	Parameter Code	Method Code	Unit Code	Unit Description
Indoor Temperature	Electronic Averaging	SPM	Other	N/A	NO	1	1	62107	013	017	deg C
Ozone	Ultraviolet Photometric	SLAMS	Population Exposure	NBR	NO	1	1	44201	047	007	ppm
Ozone	Ultraviolet Photometric	SLAMS	Not Applicable	NBR	YES	2	1	44201	047	007	ppm

Site Name: Richards Gebaur-South
AQS Site Number: 29-037-0003
Address: 1802 East 203rd Street, Belton, MO, 64012
Latitude: 38.75961
Longitude: -94.57983
Agency: Environmental Services Program
Primary Quality Assurance Organization: 0588
Air Quality Control Region (AQCR) Name: Metropolitan Kansas City
Core Based Statistical Area (CBSA) Name: Kansas City, MO-KS
AQCR ID: 094
CBSA ID: 28140

Parameter Description	Method Description	AQS Monitor Type	AQS Monitor Objective	Scale	Collocated	POC	Frequency	Parameter Code	Method Code	Unit Code	Unit Description
Barometric Pressure	Instrumental-Barometric Sensor	SPM	Other	N/A	NO	1	1	64101	014	059	mm (Hg)
Indoor Temperature	Electronic Averaging	SPM	Other	N/A	NO	1	1	62107	013	017	deg C
Outdoor Temperature	Electronic Averaging	SPM	Other (4m Probe Height)	N/A	NO	1	1	62101	040	017	deg C
Ozone	Ultraviolet Absorption	SLAMS	Population Exposure	NBR	NO	1	1	44201	087	007	ppm
Ozone	Ultraviolet Absorption	SLAMS	N/A	NBR	YES	2	1	44201	087	007	ppm
PM2.5 - LC FRM/FEM	PM2.5 VSCC FEM or Thermo Scientific 1405-F	SLAMS	Population Exposure	NBR	NO	4	1	88101	581	105	µg/m^3-LC
Relative Humidity	Instrumental-Computed (Indirect)	SPM	Other	N/A	NO	1	1	62201	020	019	% humidity
Wind Direction - Resultant	Instrumental: RM Young Model 05305	SPM	Other (10m Tower)	N/A	NO	1	1	61104	065	014	deg
Wind Speed - Resultant	Instrumental: RM Young Model 05305	SPM	Other (10m Tower)	N/A	NO	1	1	61103	065	012	mph

Site Name: Rider Trail, I-70
AQS Site Number: 29-189-0016
Address: 13080 Hollenberg Drive, Bridgeton, MO, 63044
Latitude: 38.75264
Longitude: -90.44884
Agency: Environmental Services Program
Primary Quality Assurance Organization: 0588
Air Quality Control Region (AQCR) Name: Metropolitan St. Louis
Core Based Statistical Area (CBSA) Name: St. Louis, MO-IL
AQCR ID: 070
CBSA ID: 41180

Parameter Description	Method Description	AQS Monitor Type	AQS Monitor Objective	Scale	Collocated	POC	Frequency	Parameter Code	Method Code	Unit Code	Unit Description
Barometric Pressure	Instrumental-Barometric Sensor	SPM	Other	N/A	NO	1	1	64101	014	059	mm (Hg)
Indoor Temperature	Electronic Averaging	SPM	Other	N/A	NO	1	1	62107	013	017	deg C
Nitric Oxide	Chemiluminescence	SPM	Source Oriented	MIC	NO	1	1	42601	074	008	ppb
Nitrogen Dioxide	Chemiluminescence	SLAMS	Source Oriented	MIC	NO	1	1	42602	074	008	ppb
Outdoor Temperature	RM Young	SPM	Other (10m Probe Height)	N/A	NO	2	1	62101	130	017	deg C
Outdoor Temperature	Electronic Averaging	SPM	Other (2m Probe Height)	N/A	NO	3	1	62101	040	017	deg C
Outdoor Temperature Diff	Instrumental: Elect or Mach Avg Lev 2-Lev1	SPM	Other (10m - 2m Probe Height)	N/A	NO	1	1	62106	041	116	Temp Diff deg C
Oxides of Nitrogen (Nox)	Chemiluminescence	SPM	Source Oriented	MIC	NO	1	1	42603	074	008	ppb
Precipitation	Heated Tipping Bucket	SPM	Other	N/A	NO	1	1	65102	014	021	inches
Relative Humidity	RM Young	SPM	Other	N/A	NO	1	1	62201	130	019	% humidity
Solar Radiation	Instrumental-Pyranometer	SPM	Other	N/A	NO	1	1	63301	011	079	W/m^2
Std Dev Hz Wind Direction	Arithmetic Standard Deviation	SPM	Other (10m Tower)	N/A	NO	1	1	61106	020	014	deg
Sulfur Dioxide	Ultra-violet Fluorescence	SPM	Population Exposure	MID	NO	1	1	42401	100	008	ppb
Sulfur Dioxide Max 5-min Avg	Ultra-violet Fluorescence	SPM	Population Exposure	MID	NO	1	1	42406	100	008	ppb
Wind Direction - Resultant	Instrumental: RM Young Model 05305	SPM	Other (10m Tower)	N/A	NO	1	1	61104	065	014	deg
Wind Speed - Resultant	Instrumental: RM Young Model 05305	SPM	Other (10m Tower)	N/A	NO	1	1	61103	065	012	mph

Site Name: Rocky Creek
AQS Site Number: 29-047-0006
Address: 2-114 Northwest 132 Street, Kansas City, MO, 64165
Latitude: 39.33181
Longitude: -94.58069
Agency: Environmental Services Program
Primary Quality Assurance Organization: 0588
Air Quality Control Region (AQCR) Name: Metropolitan Kansas City
Core Based Statistical Area (CBSA) Name: Kansas City, MO-KS
AQCR ID: 094
CBSA ID: 28140

Parameter Description	Method Description	AQS Monitor Type	AQS Monitor Objective	Scale	Collocated	POC	Frequency	Parameter Code	Method Code	Unit Code	Unit Description
Indoor Temperature	Electronic Averaging	SPM	Other	N/A	NO	1	1	62107	013	017	deg C
Ozone	Ultraviolet Photometric	SLAMS	Population Exposure	NBR	NO	1	1	44201	047	007	ppm
Ozone	Ultraviolet Photometric	SLAMS	N/A	NBR	YES	2	1	44201	047	007	ppm

Site Name: Savannah
AQS Site Number: 29-003-0001
Address: 11796 Highway 71, Savannah, MO, 64485
Latitude: 39.9544
Longitude: -94.849
Agency: Environmental Services Program
Primary Quality Assurance Organization: 0588
Air Quality Control Region (AQCR) Name: Northern Missouri
Core Based Statistical Area (CBSA) Name: St. Joseph, MO
AQCR ID: 137
CBSA ID: 41140

Parameter Description	Method Description	AQS Monitor Type	AQS Monitor Objective	Scale	Collocated	POC	Frequency	Parameter Code	Method Code	Unit Code	Unit Description
Indoor Temperature	Electronic Averaging	SPM	Other	N/A	NO	1	1	62107	013	017	deg C
Ozone	Ultraviolet Photometric	SLAMS	Population Exposure	NBR	NO	1	1	44201	047	007	ppm
Ozone	Ultraviolet Photometric	SLAMS	N/A	NBR	YES	2	1	44201	047	007	ppm

Site Name: South Broadway
AQS Site Number: 29-510-0007
Address: 8227 South Broadway, Saint Louis, MO, 63111
Latitude: 38.5425
Longitude: -90.263611
Agency: Environmental Services Program
Primary Quality Assurance Organization: 0588
Air Quality Control Region (AQCR) Name: Metropolitan St. Louis
Core Based Statistical Area (CBSA) Name: St. Louis, MO-IL
AQCR ID: 070
CBSA ID: 41180

Parameter Description	Method Description	AQS Monitor Type	AQS Monitor Objective	Scale	Collocated	POC	Frequency	Parameter Code	Method Code	Unit Code	Unit Description
Barometric Pressure	Instrumental-Barometric Sensor	SLAMS	Other	N/A	NO	1	1	64101	014	059	mm (Hg)
Indoor Temperature	Electronic Averaging	SPM	Other	N/A	NO	1	1	62107	013	017	deg C
Outdoor Temperature	Electronic Averaging	SPM	Other (4m Probe Height)	N/A	NO	1	1	62101	040	017	deg C
PM2.5 - LC FRM/FEM	PM2.5 VSCC FEM or Thermo Scientific 1405-F	SLAMS	Population Exposure	NBR	NO	4	1	88101	581	105	µg/m^3-LC
Relative Humidity	Instrumental-Computed (Indirect)	SPM	Other	N/A	NO	1	1	62201	020	019	% humidity

Site Name: St. Joseph Pump Station
AQS Site Number: 29-021-0005
Address: South Highway 759, Saint Joseph, MO, 64501
Latitude: 39.741667
Longitude: -94.858333
Agency: Environmental Services Program
Primary Quality Assurance Organization: 0588
Air Quality Control Region (AQCR) Name: Metropolitan Kansas City
Core Based Statistical Area (CBSA) Name: St. Joseph, MO
AQCR ID: 094
CBSA ID: 41140

Parameter Description	Method Description	AQS Monitor Type	AQS Monitor Objective	Scale	Collocated	POC	Frequency	Parameter Code	Method Code	Unit Code	Unit Description
Barometric Pressure	Instrumental-Barometric Sensor	SPM	Other	N/A	NO	1	1	64101	014	059	mm (Hg)
Barometric Pressure	Instrumental-Barometric Sensor	SPM	Other	N/A	YES	2	1	64101	014	059	mm (Hg)
Indoor Temperature	Electronic Averaging	SPM	Other	N/A	NO	1	1	62107	013	017	deg C
Outdoor Temperature	Electronic Averaging	SPM	Other (4m Probe Height)	N/A	NO	1	1	62101	040	017	deg C
Outdoor Temperature	Electronic Averaging	SPM	Other (4m Probe Height)	N/A	YES	2	1	62101	040	017	deg C
PM10 - STP FRM/FEM	R&P SA246B TEOM	SLAMS	Population Exposure	NBR	NO	3	1	81102	079	001	µg/m^3
PM2.5 - LC FRM/FEM	PM2.5 VSCC FEM or Thermo Scientific 1405-F	SLAMS	Population Exposure	NBR	NO	4	1	88101	581	105	µg/m^3-LC
PM2.5 - LC FRM/FEM	PM2.5 VSCC FEM or Thermo Scientific 1405-F	SLAMS	Quality Assurance (Collocation)	NBR	YES	5	1	88101	581	105	µg/m^3-LC
Relative Humidity	Instrumental-Computed (Indirect)	SPM	Other	N/A	NO	1	1	62201	020	019	% humidity
Relative Humidity	Instrumental-Computed (Indirect)	SPM	Other	N/A	YES	2	1	62201	020	019	% humidity
Wind Direction - Resultant	Instrumental: RM Young Model 05305	SPM	Other (5.5 meters)	N/A	NO	1	1	61104	065	014	deg
Wind Speed - Resultant	Instrumental: RM Young Model 05305	SPM	Other (5.5 meters)	N/A	NO	1	1	61103	065	012	mph

Site Name: Trimble
AQS Site Number: 29-049-0001
Address: 7536 Southwest O Highway, Trimble, MO, 64492
Latitude: 39.53063
Longitude: -94.55594
Agency: Environmental Services Program
Primary Quality Assurance Organization: 0588
Air Quality Control Region (AQCR) Name: Northern Missouri
Core Based Statistical Area (CBSA) Name: Kansas City, MO-KS
AQCR ID: 137
CBSA ID: 28140

Parameter Description	Method Description	AQS Monitor Type	AQS Monitor Objective	Scale	Collocated	POC	Frequency	Parameter Code	Method Code	Unit Code	Unit Description
Indoor Temperature	Electronic Averaging	SPM	Other	N/A	NO	1	1	62107	013	017	deg C
Ozone	Ultraviolet Photometric	SLAMS	Max Ozone Concentration	NBR	NO	1	1	44201	047	007	ppm
Ozone	Ultraviolet Photometric	SLAMS	N/A	NBR	YES	2	1	44201	047	007	ppm

Site Name: Troost
AQS Site Number: 29-095-0034
Address: 724 Troost (Rear), Kansas City, MO, 64106
Latitude: 39.10463
Longitude: -94.57040
Agency: Environmental Services Program
Primary Quality Assurance Organization: 0588
Air Quality Control Region (AQCR) Name: Metropolitan Kansas City
Core Based Statistical Area (CBSA) Name: Kansas City, MO-KS
AQCR ID: 094
CBSA ID: 28140

Parameter Description	Method Description	AQS Monitor Type	AQS Monitor Objective	Scale	Collocated	POC	Frequency	Parameter Code	Method Code	Unit Code	Unit Description
Barometric Pressure	Instrumental-Barometric Sensor	SPM	Other	N/A	NO	1	1	64101	014	059	mm (Hg)
Black Carbon PM2.5 LC	Magee Scientific TAPI M633 Aethalometer	SPM	Population Exposure	NBR	NO	1	1	88313	894	105	µg/m^3-LC
Indoor Temperature	Electronic Averaging	SPM	Other	N/A	NO	1	1	62107	013	017	deg C
Lead PM10 LC	R&P Partisol 2025 Teflon	SPM	Population Exposure (ERG)	NBR	NO	6	1/6	85128	907	108	ng/m^3-LC
Nitric Oxide	Teledyne API Model N500	SPM	Population Exposure	URB	NO	3	1	42601	256	008	ppb
Nitrogen Dioxide	Teledyne API Model N500	SLAMS	Population Exposure	URB	NO	3	1	42602	256	008	ppb
Outdoor Temperature	Electronic Averaging	SPM	Other (4m Probe Height)	N/A	NO	1	1	62101	040	017	deg C
Oxides of Nitrogen (Nox)	Teledyne API Model N500	SPM	Population Exposure	URB	NO	3	1	42603	256	008	ppb
PM10 - LC/FEM/NonFEM	Teledyne API T640x	SLAMS	Population Exposure	NBR	NO	6	1	85101	639	105	µg/m^3-LC
PM10 - STP FRM/FEM	Teledyne API T640x	SLAMS	Population Exposure	NBR	NO	6	1	81102	639	001	ug/m^3
PM2.5 - LC FRM/FEM	PM2.5 VSCC FEM or Thermo Scientific 1405-F	SLAMS	Population Exposure	NBR	NO	4	1	88101	581	105	µg/m^3-LC
PM2.5 - LC FRM/FEM	Teledyne API T640x	SPM	Population Exposure	NBR	NO	6	1	88101	638	105	µg/m^3-LC
Relative Humidity	Instrumental-Computed (Indirect)	SPM	Other	N/A	NO	1	1	62201	020	019	% humidity
Sulfur Dioxide	Pulsed Fluorescent	SLAMS	Source Oriented	MID	NO	1	1	42401	060	008	ppb
Sulfur Dioxide Max 5-min Avg	Pulsed Fluorescent	SLAMS	Source Oriented	MID	NO	1	1	42406	060	008	ppb
UV Carbon PM2.5 LC	Magee Scientific TAPI M633 Aethalometer	SPM	Population Exposure	NBR	NO	1	1	88314	894	105	µg/m^3-LC

Site Name: Watkins Mill State Park
AQS Site Number: 29-047-0003
Address: Watkins Mill Road, Lawson, MO, 64062
Latitude: 39.40770
Longitude: -94.26539
Agency: Environmental Services Program
Primary Quality Assurance Organization: 0588
Air Quality Control Region (AQCR) Name: Metropolitan Kansas City
Core Based Statistical Area (CBSA) Name: Kansas City, MO-KS
AQCR ID: 094
CBSA ID: 28140

Parameter Description	Method Description	AQS Monitor Type	AQS Monitor Objective	Scale	Collocated	POC	Frequency	Parameter Code	Method Code	Unit Code	Unit Description
Indoor Temperature	Electronic Averaging	SPM	Other	N/A	NO	1	1	62107	013	017	deg C
Ozone	Ultraviolet Photometric	SLAMS	Extreme Downwind	URB	NO	1	1	44201	047	007	ppm
Ozone	Ultraviolet Photometric	SLAMS	N/A	URB	YES	2	1	44201	047	007	ppm

Site Name: West Alton
AQS Site Number: 29-183-1002
Address: Highway 94 (General Electric Store), West Alton, MO, 63386
Latitude: 38.8725
Longitude: -90.226389
Agency: Environmental Services Program
Primary Quality Assurance Organization: 0588
Air Quality Control Region (AQCR) Name: Metropolitan St. Louis
Core Based Statistical Area (CBSA) Name: St. Louis, MO-IL
AQCR ID: 070
CBSA ID: 41180

Parameter Description	Method Description	AQS Monitor Type	AQS Monitor Objective	Scale	Collocated	POC	Frequency	Parameter Code	Method Code	Unit Code	Unit Description
Indoor Temperature	Electronic Averaging	SPM	Other	N/A	NO	1	1	62107	013	017	deg C
Nitric Oxide	Teledyne API Model N500	SPM	Population Exposure	NBR	NO	3	H	42601	256	008	ppb
Nitrogen Dioxide	Teledyne API Model N500	SPM	Population Exposure	NBR	NO	3	H	42602	256	008	ppb
Outdoor Temperature	Electronic Averaging	SPM	Other	N/A	NO	1	1	62101	040	017	deg C
Oxides of Nitrogen (Nox)	Teledyne API Model N500	SPM	Population Exposure	NBR	NO	3	H	42603	256	008	ppb
Ozone	Ultraviolet Photometric	SLAMS	Max Ozone Concentration & Population Exposure	URB	NO	1	1	44201	047	007	ppm
Ozone	Ultraviolet Photometric	SLAMS	-	URB	YES	2	1	44201	047	007	ppm
Relative Humidity	RM Young	SPM	Other	N/A	NO	1	1	62201	130	019	% humidity
Solar Radiation	Instrumental-Pyranometer	SPM	Other	N/A	NO	1	1	63301	011	079	W/m^2
Wind Direction - Resultant	Instrumental: RM Young Model 05305	SPM	Other (10m Tower)	N/A	NO	1	1	61104	065	014	deg
Wind Speed - Resultant	Instrumental: RM Young Model 05305	SPM	Other (10m Tower)	N/A	NO	1	1	61103	065	012	mph

Site Name: County Road 75
AQS Site Number: 29-093-9010
Address: 98 Iron County Road, Bixby, MO, 65439
Latitude: 37.64876
Longitude: -91.14980
Agency: Doe Run Buick
Primary Quality Assurance Organization: 1290
Air Quality Control Region (AQCR) Name: SE Missouri
Core Based Statistical Area (CBSA) Name: Not in a CBSA
AQCR ID: 138
CBSA ID: 00000

Parameter Description	Method Description	AQS Monitor Type	AQS Monitor Objective	Scale	Collocated	POC	Frequency	Parameter Code	Method Code	Unit Code	Unit Description
Sulfur Dioxide	Pulsed Fluorescent	Industrial	Source Oriented	MID	NO	1	1	42401	060	008	ppb
Sulfur Dioxide Max 5-min Avg	Pulsed Fluorescent	Industrial	Source Oriented	MID	NO	1	1	42406	060	008	ppb

Site Name: Doe Run Buick - Buick NE
AQS Site Number: 29-093-9008
Address: 346 Power Lane, Bixby West, MO, 65439
Latitude: 37.65214
Longitude: -91.11689
Agency: Doe Run Buick
Primary Quality Assurance Organization: 1290
Air Quality Control Region (AQCR) Name: SE Missouri
Core Based Statistical Area (CBSA) Name: Not in a CBSA
AQCR ID: 138
CBSA ID: 00000

Parameter Description	Method Description	AQS Monitor Type	AQS Monitor Objective	Scale	Collocated	POC	Frequency	Parameter Code	Method Code	Unit Code	Unit Description
Lead (TSP) - LC FRM/FEM	Inductive Coupled Plasma Spectrometry	Industrial	Source Oriented	MID	NO	1	1/1	14129	192	105	µg/m^3-LC

Site Name: Doe Run Buick - North #5 (NON-A)
AQS Site Number: 29-093-0021
Address: Doe Run Buick - North Number 5, Buick, MO, 65439
Latitude: 37.65178
Longitude: -91.13094
Agency: Doe Run Buick
Primary Quality Assurance Organization: 1290
Air Quality Control Region (AQCR) Name: SE Missouri
Core Based Statistical Area (CBSA) Name: Not in a CBSA
AQCR ID: 138
CBSA ID: 00000

Parameter Description	Method Description	AQS Monitor Type	AQS Monitor Objective	Scale	Collocated	POC	Frequency	Parameter Code	Method Code	Unit Code	Unit Description
Lead (TSP) - LC FRM/FEM	Inductive Coupled Plasma Spectrometry	Industrial	Source Oriented	MID	NO	1	1/6	14129	192	105	µg/m^3-LC

Site Name: Doe Run Buick - South #1 (NON-A)
AQS Site Number: 29-093-0016
Address: Doe Run Buick - South Number 1, Buick, MO, 65439
Latitude: 37.62400
Longitude: -91.12827
Agency: Doe Run Buick
Primary Quality Assurance Organization: 1290
Air Quality Control Region (AQCR) Name: SE Missouri
Core Based Statistical Area (CBSA) Name: Not in a CBSA
AQCR ID: 138
CBSA ID: 00000

Parameter Description	Method Description	AQS Monitor Type	AQS Monitor Objective	Scale	Collocated	POC	Frequency	Parameter Code	Method Code	Unit Code	Unit Description
Lead (TSP) - LC FRM/FEM	Inductive Coupled Plasma Spectrometry	Industrial	Source Oriented	MID	NO	1	1/6	14129	192	105	µg/m^3-LC
Lead (TSP) - LC FRM/FEM	Inductive Coupled Plasma Spectrometry	Industrial	Quality Assurance (Collocation)	MID	YES	2	1/6	14129	192	105	µg/m^3-LC

Site Name: Hwy 32 Northeast
AQS Site Number: 29-093-9009
Address: 1582 Highway 32, Bixby, MO, 65439
Latitude: 37.65319
Longitude: -91.12795
Agency: Doe Run Buick
Primary Quality Assurance Organization: 1290
Air Quality Control Region (AQCR) Name: SE Missouri
Core Based Statistical Area (CBSA) Name: Not in a CBSA
AQCR ID: 138
CBSA ID: 00000

Parameter Description	Method Description	AQS Monitor Type	AQS Monitor Objective	Scale	Collocated	POC	Frequency	Parameter Code	Method Code	Unit Code	Unit Description
Sulfur Dioxide	Pulsed Fluorescent	Industrial	Source Oriented	MID	NO	1	1	42401	060	008	ppb
Sulfur Dioxide Max 5-min Avg	Pulsed Fluorescent	Industrial	Source Oriented	MID	NO	1	1	42406	060	008	ppb

Site Name: West Entrance
AQS Site Number: 29-093-9011
Address: 18594 Highway KK, Boss, MO, 65440
Latitude: 37.63211
Longitude: -91.13565
Agency: Doe Run Buick
Primary Quality Assurance Organization: 1290
Air Quality Control Region (AQCR) Name: SE Missouri
Core Based Statistical Area (CBSA) Name: Not in a CBSA
AQCR ID: 138
CBSA ID: 00000

Parameter Description	Method Description	AQS Monitor Type	AQS Monitor Objective	Scale	Collocated	POC	Frequency	Parameter Code	Method Code	Unit Code	Unit Description
Sulfur Dioxide	Pulsed Fluorescent	Industrial	Source Oriented	MID	NO	1	1	42401	060	008	ppb
Sulfur Dioxide Max 5-min Avg	Pulsed Fluorescent	Industrial	Source Oriented	MID	NO	1	1	42406	060	008	ppb

Site Name: Labadie, North
AQS Site Number: 29-183-9004
Address: North of Terry Road and Kingfisher Court, Augusta, MO, 63332
Latitude: 38.59557
Longitude: -90.82864
Agency: Ameren Missouri
Primary Quality Assurance Organization: 1440
Air Quality Control Region (AQCR) Name: Metropolitan St. Louis
Core Based Statistical Area (CBSA) Name: St. Louis, MO-IL
AQCR ID: 070
CBSA ID: 41180

Parameter Description	Method Description	AQS Monitor Type	AQS Monitor Objective	Scale	Collocated	POC	Frequency	Parameter Code	Method Code	Unit Code	Unit Description
Sulfur Dioxide	Ultra-violet Fluorescence	Industrial	Source Oriented	MID	NO	1	1	42401	100	008	ppb
Sulfur Dioxide Max 5-min Avg	Ultra-violet Fluorescence	Industrial	Source Oriented	MID	NO	1	1	42406	100	008	ppb

Name: Labadie, Northwest
AQS Site Number: 29-183-9002
Address: Route 94 Near Schluersburg Road Intersection, Augusta, MO, 63332
Latitude: 38.5818
Longitude: -90.865528
Agency: Ameren Missouri
Primary Quality Assurance Organization: 1440
Air Quality Control Region (AQCR) Name: Metropolitan St. Louis
Core Based Statistical Area (CBSA) Name: St. Louis, MO-IL
AQCR ID: 070
CBSA ID: 41180

Parameter Description	Method Description	AQS Monitor Type	AQS Monitor Objective	Scale	Collocated	POC	Frequency	Parameter Code	Method Code	Unit Code	Unit Description
Outdoor Temperature	Electronic Averaging	Industrial	Other (10m Probe Height)	N/A	NO	2	1	62101	040	017	deg C
Outdoor Temperature	Electronic Averaging	Industrial	Other (2m Probe Height)	N/A	NO	3	1	62101	040	017	deg C
Outdoor Temperature Diff	Instrumental: Elect or Mach Avg Lev 2-Lev1	Industrial	Other (10m - 2m Probe Heights)	N/A	NO	1	1	62106	041	116	Temp Diff deg C
Relative Humidity	Met One 083D	Industrial	Other	N/A	NO	1	1	62201	061	019	% humidity
Std Dev Hz Wind Direction	Arithmetic Standard Deviation	Industrial	Other (10m Tower)	N/A	NO	1	1	61106	063	014	deg
Std Dev Vt Wind Direction	Arithmetic Standard Deviation	Industrial	Other (10m Tower)	N/A	NO	1	1	61107	020	014	deg
Sulfur Dioxide	Ultra-violet Fluorescence	Industrial	Source Oriented	MID	NO	1	1	42401	100	008	ppb
Sulfur Dioxide Max 5-min Avg	Ultra-violet Fluorescence	Industrial	Source Oriented	MID	NO	1	1	42406	100	008	ppb
Wind Direction - Resultant	Vector Summation	Industrial	Other (10m Tower)	N/A	NO	1	1	61104	020	014	deg
Wind Direction - Scalar	Climatronics	Industrial	Other (10m Tower)	N/A	NO	1	1	61102	063	014	deg
Wind Speed - Resultant	Vector Summation	Industrial	Other (10m Tower)	N/A	NO	1	1	61103	020	011	m/s
Wind Speed - Scalar	Climatronics	Industrial	Other (10m Tower)	N/A	NO	1	1	61101	063	011	m/s
Wind Speed - Vertical	Electronic Averaging	Industrial	Other (10m Tower)	N/A	NO	1	1	61109	020	011	m/s
WS - Sigma Theta (Vertical)	Arithmetic Standard Deviation	Industrial	Other (10m Tower)	N/A	NO	1	1	61110	020	011	m/s

Site Name: Labadie "Plant" Site
AQS Site Number: 29-071-9003
Address: About 1.5 Kilometers South of Labadie Energy Center, Labadie, MO, 63055
Latitude: 38.5486
Longitude: -90.83725
Agency: Ameren Missouri
Primary Quality Assurance Organization: 1440
Air Quality Control Region (AQCR) Name: Metropolitan St. Louis
Core Based Statistical Area (CBSA) Name: St. Louis, MO-IL
AQCR ID: 070
CBSA ID: 41180

Parameter Description	Method Description	AQS Monitor Type	AQS Monitor Objective	Scale	Collocated	POC	Frequency	Parameter Code	Method Code	Unit Code	Unit Description
Std Dev Hz Wind Direction	Scintec MFAS Sodar/RASS Acoustic Sounder	Industrial	Other (40m)	N/A	NO	1	1	61106	127	014	deg
Std Dev Hz Wind Direction	Scintec MFAS Sodar/RASS Acoustic Sounder	Industrial	Other (60m)	N/A	NO	2	1	61106	127	014	deg
Std Dev Hz Wind Direction	Scintec MFAS Sodar/RASS Acoustic Sounder	Industrial	Other (80m)	N/A	NO	3	1	61106	127	014	deg
Std Dev Hz Wind Direction	Scintec MFAS Sodar/RASS Acoustic Sounder	Industrial	Other (100m)	N/A	NO	4	1	61106	127	014	deg
Std Dev Hz Wind Direction	Scintec MFAS Sodar/RASS Acoustic Sounder	Industrial	Other (120m)	N/A	NO	5	1	61106	127	014	deg
Std Dev Hz Wind Direction	Scintec MFAS Sodar/RASS Acoustic Sounder	Industrial	Other (140m)	N/A	NO	6	1	61106	127	014	deg
Std Dev Hz Wind Direction	Scintec MFAS Sodar/RASS Acoustic Sounder	Industrial	Other (160m)	N/A	NO	7	1	61106	127	014	deg
Std Dev Hz Wind Direction	Scintec MFAS Sodar/RASS Acoustic Sounder	Industrial	Other (180m)	N/A	NO	8	1	61106	127	014	deg
Std Dev Hz Wind Direction	Scintec MFAS Sodar/RASS Acoustic Sounder	Industrial	Other (200m)	N/A	NO	9	1	61106	127	014	deg
Std Dev Hz Wind Direction	Scintec MFAS Sodar/RASS Acoustic Sounder	Industrial	Other (220m)	N/A	NO	10	1	61106	127	014	deg
Std Dev Hz Wind Direction	Scintec MFAS Sodar/RASS Acoustic Sounder	Industrial	Other (240m)	N/A	NO	11	1	61106	127	014	deg
Std Dev Hz Wind Direction	Scintec MFAS Sodar/RASS Acoustic Sounder	Industrial	Other (260m)	N/A	NO	12	1	61106	127	014	deg
Std Dev Hz Wind Direction	Scintec MFAS Sodar/RASS Acoustic Sounder	Industrial	Other (280m)	N/A	NO	13	1	61106	127	014	deg
Std Dev Hz Wind Direction	Scintec MFAS Sodar/RASS Acoustic Sounder	Industrial	Other (300m)	N/A	NO	14	1	61106	127	014	deg
Temperature Virtual	Scintec MFAS Sodar/RASS Radar Profiler	Industrial	Other (40m)	N/A	NO	1	1	62102	128	017	deg C
Temperature Virtual	Scintec MFAS Sodar/RASS Radar Profiler	Industrial	Other (60m)	N/A	NO	2	1	62102	128	017	deg C
Temperature Virtual	Scintec MFAS Sodar/RASS Radar Profiler	Industrial	Other (80m)	N/A	NO	3	1	62102	128	017	deg C
Temperature Virtual	Scintec MFAS Sodar/RASS Radar Profiler	Industrial	Other (100m)	N/A	NO	4	1	62102	128	017	deg C
Temperature Virtual	Scintec MFAS Sodar/RASS Radar Profiler	Industrial	Other (120m)	N/A	NO	5	1	62102	128	017	deg C
Temperature Virtual	Scintec MFAS Sodar/RASS Radar Profiler	Industrial	Other (140m)	N/A	NO	6	1	62102	128	017	deg C

Site Name: Labadie "Plant" Site
AQS Site Number: 29-071-9003
Address: About 1.5 Kilometers South of Labadie Energy Center, Labadie, MO, 63055
Latitude: 38.5486
Longitude: -90.83725
Agency: Ameren Missouri
Primary Quality Assurance Organization: 1440
Air Quality Control Region (AQCR) Name: Metropolitan St. Louis
Core Based Statistical Area (CBSA) Name: St. Louis, MO-IL
AQCR ID: 070
CBSA ID: 41180

Parameter Description	Method Description	AQS Monitor Type	AQS Monitor Objective	Scale	Collocated	POC	Frequency	Parameter Code	Method Code	Unit Code	Unit Description
Temperature Virtual	Scintec MFAS Sodar/RASS Radar Profiler	Industrial	Other (160m)	N/A	NO	7	1	62102	128	017	deg C
Temperature Virtual	Scintec MFAS Sodar/RASS Radar Profiler	Industrial	Other (180m)	N/A	NO	8	1	62102	128	017	deg C
Temperature Virtual	Scintec MFAS Sodar/RASS Radar Profiler	Industrial	Other (200m)	N/A	NO	9	1	62102	128	017	deg C
Temperature Virtual	Scintec MFAS Sodar/RASS Radar Profiler	Industrial	Other (220m)	N/A	NO	10	1	62102	128	017	deg C
Temperature Virtual	Scintec MFAS Sodar/RASS Radar Profiler	Industrial	Other (240m)	N/A	NO	11	1	62102	128	017	deg C
Temperature Virtual	Scintec MFAS Sodar/RASS Radar Profiler	Industrial	Other (260m)	N/A	NO	12	1	62102	128	017	deg C
Temperature Virtual	Scintec MFAS Sodar/RASS Radar Profiler	Industrial	Other (280m)	N/A	NO	13	1	62102	128	017	deg C
Temperature Virtual	Scintec MFAS Sodar/RASS Radar Profiler	Industrial	Other (300m)	N/A	NO	14	1	62102	128	017	deg C
Wind Direction - Resultant	Scintec MFAS Sodar/RASS Acoustic Sounder	Industrial	Other (40m)	N/A	NO	1	1	61104	127	014	deg
Wind Direction - Resultant	Scintec MFAS Sodar/RASS Acoustic Sounder	Industrial	Other (60m)	N/A	NO	2	1	61104	127	014	deg
Wind Direction - Resultant	Scintec MFAS Sodar/RASS Acoustic Sounder	Industrial	Other (80m)	N/A	NO	3	1	61104	127	014	deg
Wind Direction - Resultant	Scintec MFAS Sodar/RASS Acoustic Sounder	Industrial	Other (100m)	N/A	NO	4	1	61104	127	014	deg
Wind Direction - Resultant	Scintec MFAS Sodar/RASS Acoustic Sounder	Industrial	Other (120m)	N/A	NO	5	1	61104	127	014	deg
Wind Direction - Resultant	Scintec MFAS Sodar/RASS Acoustic Sounder	Industrial	Other (140m)	N/A	NO	6	1	61104	127	014	deg
Wind Direction - Resultant	Scintec MFAS Sodar/RASS Acoustic Sounder	Industrial	Other (160m)	N/A	NO	7	1	61104	127	014	deg
Wind Direction - Resultant	Scintec MFAS Sodar/RASS Acoustic Sounder	Industrial	Other (180m)	N/A	NO	8	1	61104	127	014	deg
Wind Direction - Resultant	Scintec MFAS Sodar/RASS Acoustic Sounder	Industrial	Other (200m)	N/A	NO	9	1	61104	127	014	deg
Wind Direction - Resultant	Scintec MFAS Sodar/RASS Acoustic Sounder	Industrial	Other (220m)	N/A	NO	10	1	61104	127	014	deg
Wind Direction - Resultant	Scintec MFAS Sodar/RASS Acoustic Sounder	Industrial	Other (240m)	N/A	NO	11	1	61104	127	014	deg
Wind Direction - Resultant	Scintec MFAS Sodar/RASS Acoustic Sounder	Industrial	Other (260m)	N/A	NO	12	1	61104	127	014	deg

Site Name: Labadie "Plant" Site
AQS Site Number: 29-071-9003
Address: About 1.5 Kilometers South of Labadie Energy Center, Labadie, MO, 63055
Latitude: 38.5486
Longitude: -90.83725
Agency: Ameren Missouri
Primary Quality Assurance Organization: 1440
Air Quality Control Region (AQCR) Name: Metropolitan St. Louis
Core Based Statistical Area (CBSA) Name: St. Louis, MO-IL
AQCR ID: 070
CBSA ID: 41180

Parameter Description	Method Description	AQS Monitor Type	AQS Monitor Objective	Scale	Collocated	POC	Frequency	Parameter Code	Method Code	Unit Code	Unit Description
Wind Direction - Resultant	Scintec MFAS Sodar/RASS Acoustic Sounder	Industrial	Other (280m)	N/A	NO	13	1	61104	127	014	deg
Wind Direction - Resultant	Scintec MFAS Sodar/RASS Acoustic Sounder	Industrial	Other (300m)	N/A	NO	14	1	61104	127	014	deg
Wind Speed - Resultant	Scintec MFAS Sodar/RASS Acoustic Sounder	Industrial	Other (40m)	N/A	NO	1	1	61103	127	011	m/s
Wind Speed - Resultant	Scintec MFAS Sodar/RASS Acoustic Sounder	Industrial	Other (60m)	N/A	NO	2	1	61103	127	011	m/s
Wind Speed - Resultant	Scintec MFAS Sodar/RASS Acoustic Sounder	Industrial	Other (80m)	N/A	NO	3	1	61103	127	011	m/s
Wind Speed - Resultant	Scintec MFAS Sodar/RASS Acoustic Sounder	Industrial	Other (100m)	N/A	NO	4	1	61103	127	011	m/s
Wind Speed - Resultant	Scintec MFAS Sodar/RASS Acoustic Sounder	Industrial	Other (120m)	N/A	NO	5	1	61103	127	011	m/s
Wind Speed - Resultant	Scintec MFAS Sodar/RASS Acoustic Sounder	Industrial	Other (140m)	N/A	NO	6	1	61103	127	011	m/s
Wind Speed - Resultant	Scintec MFAS Sodar/RASS Acoustic Sounder	Industrial	Other (160m)	N/A	NO	7	1	61103	127	011	m/s
Wind Speed - Resultant	Scintec MFAS Sodar/RASS Acoustic Sounder	Industrial	Other (180m)	N/A	NO	8	1	61103	127	011	m/s
Wind Speed - Resultant	Scintec MFAS Sodar/RASS Acoustic Sounder	Industrial	Other (200m)	N/A	NO	9	1	61103	127	011	m/s
Wind Speed - Resultant	Scintec MFAS Sodar/RASS Acoustic Sounder	Industrial	Other (220m)	N/A	NO	10	1	61103	127	011	m/s
Wind Speed - Resultant	Scintec MFAS Sodar/RASS Acoustic Sounder	Industrial	Other (240m)	N/A	NO	11	1	61103	127	011	m/s
Wind Speed - Resultant	Scintec MFAS Sodar/RASS Acoustic Sounder	Industrial	Other (260m)	N/A	NO	12	1	61103	127	011	m/s
Wind Speed - Resultant	Scintec MFAS Sodar/RASS Acoustic Sounder	Industrial	Other (280m)	N/A	NO	13	1	61103	127	011	m/s
Wind Speed - Resultant	Scintec MFAS Sodar/RASS Acoustic Sounder	Industrial	Other (300m)	N/A	NO	14	1	61103	127	011	m/s
WS - Sigma Theta (Vertical)	Scintec MFAS Sodar/RASS Acoustic Sounder	Industrial	Other (40m)	N/A	NO	1	1	61110	127	011	m/s
WS - Sigma Theta (Vertical)	Scintec MFAS Sodar/RASS Acoustic Sounder	Industrial	Other (60m)	N/A	NO	2	1	61110	127	011	m/s
WS - Sigma Theta (Vertical)	Scintec MFAS Sodar/RASS Acoustic Sounder	Industrial	Other (80m)	N/A	NO	3	1	61110	127	011	m/s
WS - Sigma Theta (Vertical)	Scintec MFAS Sodar/RASS Acoustic Sounder	Industrial	Other (100m)	N/A	NO	4	1	61110	127	011	m/s

Site Name: Labadie "Plant" Site
AQS Site Number: 29-071-9003
Address: About 1.5 Kilometers South of Labadie Energy Center, Labadie, MO, 63055
Latitude: 38.5486
Longitude: -90.83725
Agency: Ameren Missouri
Primary Quality Assurance Organization: 1440
Air Quality Control Region (AQCR) Name: Metropolitan St. Louis
Core Based Statistical Area (CBSA) Name: St. Louis, MO-IL
AQCR ID: 070
CBSA ID: 41180

Parameter Description	Method Description	AQS Monitor Type	AQS Monitor Objective	Scale	Collocated	POC	Frequency	Parameter Code	Method Code	Unit Code	Unit Description
WS - Sigma Theta (Vertical)	Scintec MFAS Sodar/RASS Acoustic Sounder	Industrial	Other (120m)	N/A	NO	5	1	61110	127	011	m/s
WS - Sigma Theta (Vertical)	Scintec MFAS Sodar/RASS Acoustic Sounder	Industrial	Other (140m)	N/A	NO	6	1	61110	127	011	m/s
WS - Sigma Theta (Vertical)	Scintec MFAS Sodar/RASS Acoustic Sounder	Industrial	Other (160m)	N/A	NO	7	1	61110	127	011	m/s
WS - Sigma Theta (Vertical)	Scintec MFAS Sodar/RASS Acoustic Sounder	Industrial	Other (180m)	N/A	NO	8	1	61110	127	011	m/s
WS - Sigma Theta (Vertical)	Scintec MFAS Sodar/RASS Acoustic Sounder	Industrial	Other (200m)	N/A	NO	9	1	61110	127	011	m/s
WS - Sigma Theta (Vertical)	Scintec MFAS Sodar/RASS Acoustic Sounder	Industrial	Other (220m)	N/A	NO	10	1	61110	127	011	m/s
WS - Sigma Theta (Vertical)	Scintec MFAS Sodar/RASS Acoustic Sounder	Industrial	Other (240m)	N/A	NO	11	1	61110	127	011	m/s
WS - Sigma Theta (Vertical)	Scintec MFAS Sodar/RASS Acoustic Sounder	Industrial	Other (260m)	N/A	NO	12	1	61110	127	011	m/s
WS - Sigma Theta (Vertical)	Scintec MFAS Sodar/RASS Acoustic Sounder	Industrial	Other (280m)	N/A	NO	13	1	61110	127	011	m/s
WS - Sigma Theta (Vertical)	Scintec MFAS Sodar/RASS Acoustic Sounder	Industrial	Other (300m)	N/A	NO	14	1	61110	127	011	m/s

Site Name: Labadie, Southwest
AQS Site Number: 29-071-9002
Address: 870 Albertina Lane, Labadie, MO, 63055
Latitude: 38.52825
Longitude: -90.86301
Agency: Ameren Missouri
Primary Quality Assurance Organization: 1440
Air Quality Control Region (AQCR) Name: Metropolitan St. Louis
Core Based Statistical Area (CBSA) Name: St. Louis, MO-IL
AQCR ID: 070
CBSA ID: 41180

Parameter Description	Method Description	AQS Monitor Type	AQS Monitor Objective	Scale	Collocated	POC	Frequency	Parameter Code	Method Code	Unit Code	Unit Description
Sulfur Dioxide	Ultra-violet Fluorescence	Industrial	Source Oriented	MID	NO	1	1	42401	100	008	ppb
Sulfur Dioxide Max 5-min Avg	Ultra-violet Fluorescence	Industrial	Source Oriented	MID	NO	1	1	42406	100	008	ppb

Site Name: Labadie, Valley Site
AQS Site Number: 29-071-9001
Address: County Road 342, Farrar, MO, 63746
Latitude: 38.572522
Longitude: -90.796911
Agency: Ameren Missouri
Primary Quality Assurance Organization: 1440
Air Quality Control Region (AQCR) Name: Metropolitan St. Louis
Core Based Statistical Area (CBSA) Name: St. Louis, MO-IL
AQCR ID: 070
CBSA ID: 41180

Parameter Description	Method Description	AQS Monitor Type	AQS Monitor Objective	Scale	Collocated	POC	Frequency	Parameter Code	Method Code	Unit Code	Unit Description
Barometric Pressure	Instrumental-Barometric Press Transducer	Industrial	Other	N/A	NO	1	1	64101	015	016	Millibars
Outdoor Temperature	Electronic Averaging	Industrial	Other (10m Probe Height)	N/A	NO	2	1	62101	040	017	deg C
Outdoor Temperature	Electronic Averaging	Industrial	Other (2m Probe Height)	N/A	NO	3	1	62101	040	017	deg C
Outdoor Temperature Diff	Instrumental: Elect or Mach Avg Lev 2-Lev1	Industrial	Other (10m - 2m Probe Heights)	N/A	NO	1	1	62106	041	116	Temp Diff deg C
Precipitation	Heated Tipping Bucket	Industrial	Other	N/A	NO	1	1	65102	014	021	inches
Relative Humidity	Met One 083D	Industrial	Other	N/A	NO	1	1	62201	061	019	% humidity
Solar Radiation	Instrumental-Pyranometer	Industrial	Other	N/A	NO	1	1	63301	011	079	W/m^2
Std Dev Hz Wind Direction	Arithmetic Standard Deviation	Industrial	Other (10m Tower)	N/A	NO	1	1	61106	063	014	deg
Std Dev Vt Wind Direction	Arithmetic Standard Deviation	Industrial	Other (10m Tower)	N/A	NO	1	1	61107	020	014	deg
Sulfur Dioxide	Ultra-violet Fluorescence	Industrial	Source Oriented	MID	NO	1	1	42401	100	008	ppb
Sulfur Dioxide Max 5-min Avg	Ultra-violet Fluorescence	Industrial	Source Oriented	MID	NO	1	1	42406	100	008	ppb
Wind Direction - Resultant	Vector Summation	Industrial	Other (10m Tower)	N/A	NO	1	1	61104	020	014	deg
Wind Direction - Scalar	Climatronics	Industrial	Other (10m Tower)	N/A	NO	1	1	61102	063	014	deg
Wind Speed - Resultant	Vector Summation	Industrial	Other (10m Tower)	N/A	NO	1	1	61103	020	011	m/s
Wind Speed - Scalar	Climatronics	Industrial	Other (10m Tower)	N/A	NO	1	1	61101	063	011	m/s
Wind Speed - Vertical	Electronic Averaging	Industrial	Other (10m Tower)	N/A	NO	1	1	61109	020	011	m/s
WS - Sigma Theta (Vertical)	Arithmetic Standard Deviation	Industrial	Other (10m Tower)	N/A	NO	1	1	61110	020	011	m/s

Site Name: Magnitude 7 Metals, Site # 1 AECI Water Tower Location
AQS Site Number: 29-143-9001
Address: 391 Saint Jude Industrial Park, New Madrid, MO, 63869
Latitude: 36.51364
Longitude: -89.56093
Agency: Magnitude 7 Metals
Primary Quality Assurance Organization: 2368
Air Quality Control Region (AQCR) Name: SE Missouri
Core Based Statistical Area (CBSA) Name: Not in a CBSA
AQCR ID: 138
CBSA ID: 00000

Parameter Description	Method Description	AQS Monitor Type	AQS Monitor Objective	Scale	Collocated	POC	Frequency	Parameter Code	Method Code	Unit Code	Unit Description
Indoor Temperature	Electronic Averaging	Industrial	Other	MID	NO	1	1	62107	013	017	deg C
Sulfur Dioxide	Pulsed Fluorescent	Industrial	Source Oriented	MID	NO	1	1	42401	060	008	ppb
Sulfur Dioxide Max 5-min Avg	Pulsed Fluorescent	Industrial	Source Oriented	MID	NO	1	1	42406	060	008	ppb

Site Name: Magnitude 7 Metals, Site # 2 East Graveyard
AQS Site Number: 29-143-9002
Address: 391 Saint Jude Industrial Park, New Madrid, MO, 63869
Latitude: 36.50838
Longitude: -89.56074
Agency: Magnitude 7 Metals
Primary Quality Assurance Organization: 2368
Air Quality Control Region (AQCR) Name: SE Missouri
Core Based Statistical Area (CBSA) Name: Not in a CBSA
AQCR ID: 138
CBSA ID: 00000

Parameter Description	Method Description	AQS Monitor Type	AQS Monitor Objective	Scale	Collocated	POC	Frequency	Parameter Code	Method Code	Unit Code	Unit Description
Indoor Temperature	Electronic Averaging	Industrial	Other	MID	NO	1	1	62107	013	017	deg C
Sulfur Dioxide	Pulsed Fluorescent	Industrial	Source Oriented	MID	NO	1	1	42401	060	008	ppb
Sulfur Dioxide Max 5-min Avg	Pulsed Fluorescent	Industrial	Source Oriented	MID	NO	1	1	42406	060	008	ppb

Site Name: Magnitude 7 Metals, Site # 3 West Entrance
AQS Site Number: 29-143-9003
Address: 391 Saint Jude Industrial Park, New Madrid, MO, 63869
Latitude: 36.50899
Longitude: -89.57099
Agency: Magnitude 7 Metals
Primary Quality Assurance Organization: 2368
Air Quality Control Region (AQCR) Name: SE Missouri
Core Based Statistical Area (CBSA) Name: Not in a CBSA
AQCR ID: 138
CBSA ID: 00000

Parameter Description	Method Description	AQS Monitor Type	AQS Monitor Objective	Scale	Collocated	POC	Frequency	Parameter Code	Method Code	Unit Code	Unit Description
Indoor Temperature	Electronic Averaging	Industrial	Other	MID	NO	1	1	62107	013	017	deg C
Sulfur Dioxide	Pulsed Fluorescent	Industrial	Source Oriented	MID	NO	1	1	42401	060	008	ppb
Sulfur Dioxide Max 5-min Avg	Pulsed Fluorescent	Industrial	Source Oriented	MID	NO	1	1	42406	060	008	ppb
Wind Direction - Resultant	Instrumental: RM Young Model 05305	Industrial	Other	MID	NO	1	1	61104	065	014	deg
Wind Speed - Resultant	Instrumental: RM Young Model 05305	Industrial	Other	MID	NO	1	1	61103	065	011	m/s

Appendix 2: 40 CFR Part 58 Appendix E.4 Waiver Request

MISSOURI
DEPARTMENT OF
NATURAL RESOURCES

Mike Kehoe
Governor

Kurt U. Schaefer
Director

March 25, 2026

Jim Macy
Regional Administrator
U.S. Environmental Protection Agency
11201 Renner Boulevard
Lenexa, KS 66219

RE: Combining Pb Data from Two Primary Quality Assurance Organizations (PQAO)
40 CFR Part 58 Appendix E.4 Waiver Request

Regional Administrator Macy:

The Missouri Department of Natural Resources is requesting that the United States Environmental Protection Agency (EPA) Region 7 grant a waiver for two samplers that fall outside the 4 meter distance requirement for collocation (40 CFR Part 58 Appendix A.3.4.4.2(b)) for the Doe Run Buick- Buick NE (AQS site ID 29-093-9008).

In the Department's December 9, 2025, letter to EPA (**Attachment A**), the Department continued dialogue about potentially combining lead monitoring data using samplers managed by Doe Run and samplers managed by the department. In the letter, the Department identified five of the seven Doe Run Buick samplers within the required 4 meters of the Departments primary monitor (AQS site ID 29-093-0034 (POC1)) at the same geographic site. The two samplers outside 4 meters are 4.65 and 4.98 meters from the Department's primary monitor are set up to run Friday (Sampler Number – 7366) and Saturday (Sampler Number 3079) respectively. A diagram displaying the measurements, sampler numbers, and the day of the week a sampler operates, as well as photos of the site are included in **(Attachment A**: **Attachment 2**). The Department coordinated with Doe Run for each unique sampler number and confirmed the day that each sampler was scheduled to run.

The Department is requesting a waiver for these two samplers so that they may be included in the site-parameter data record and used for NAQQS determinations moving forward.

40 CFR Part 58 Appendix E.4.2 states:

> *For an existing site, a waiver may be granted if either the criterion in section 4.1.1 or the criterion in 4.1.2 of this appendix is met.*

40 CFR Part 58 Appendix E.4.1 states:

> *For a proposed new site, a waiver may be granted only if both the following criteria are met:*

> *4.1.1 The proposed new site can be demonstrated to be as representative of the monitoring area as it would be if the siting criteria were being met.*
>
> *4.1.2 The monitor or probe cannot reasonably be located so as to meet the siting criteria because of physical constraints (e.g., inability to locate the required type of site the necessary distance from roadways or obstructions).*

It is possible the samplers could be relocated as described in 40 CFR Part 58 Appendix E.4.1. As a result, for a waiver to be granted, the requirement of 40 CFR Part 58 Appendix E.4.1.1 must be satisfied.

In order to satisfy 40 CFR Part 58 Appendix E.4.1.1, the Department must demonstrate that the two samplers in question are representative of the monitoring area as it would be if the siting criteria were being met.

The blue line on **Figure 1** represents the three-month rolling average with all measurement days of the week including the Friday and Saturday samplers in question. The orange line represents the three-month rolling average with the samplers that currently meet the distance requirements of 40 CFR Part 58 Appendix A.3.4.4.2(b), excluding the Friday and Saturday samplers. The three-month rolling averages displayed in **Figure 1** were calculated by the method laid out in 40 CFR Part 50 Appendix R.3.(d) with the Department's Buick NE monitor serving as the primary monitor. The average difference in three-month rolling averages between the measurement days 1-7 and measurement days 1-5 for the 2024-2025 period was 0.002 micrograms per cubic meter (0.083-0.081=0.002). The data analysis demonstrates that the two samplers are representative of the same air shed.

In addition to the data analysis demonstrating the representativeness of the two samplers, it is important to note that the lead monitoring occurring at the site is classified as middle scale as defined in 40 CFR Part 58 Appendix D. 40 CFR Part 58 Appendix D.4.5(d) states:

> *This scale generally represents Pb air quality levels in areas up to several city blocks in size with dimensions on the order of approximately 100 meters to 500 meters. The middle scale may for example, include schools and playgrounds in center city areas which are close to major Pb point sources. Pb monitors in such areas are desirable because of the higher sensitivity of children to exposures of elevated Pb concentrations (reference 3 of this appendix). Emissions from point sources frequently impact on areas at which single sites may be located to measure concentrations representing middle spatial scales.*

Given the middle scale designation being defined as 100 meters to 500 meters and the samplers are less than one meter from meeting the collocation requirement, the Department considers these two monitors to be representative of the middle scale air shed being sampled.

If approved, approval date of this waiver will be documented in the annual monitoring network plan per the requirements in 40 CFR Part 58.10 (a)(1).

If you have questions regarding this letter or the enclosures, please contact Josh Vander Veen with the Department's Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102 or by telephone at 573-751-8328.

Sincerely,

AIR POLLUTION CONTROL PROGRAM

Stephen M. Hall
Director

SMH:jvv

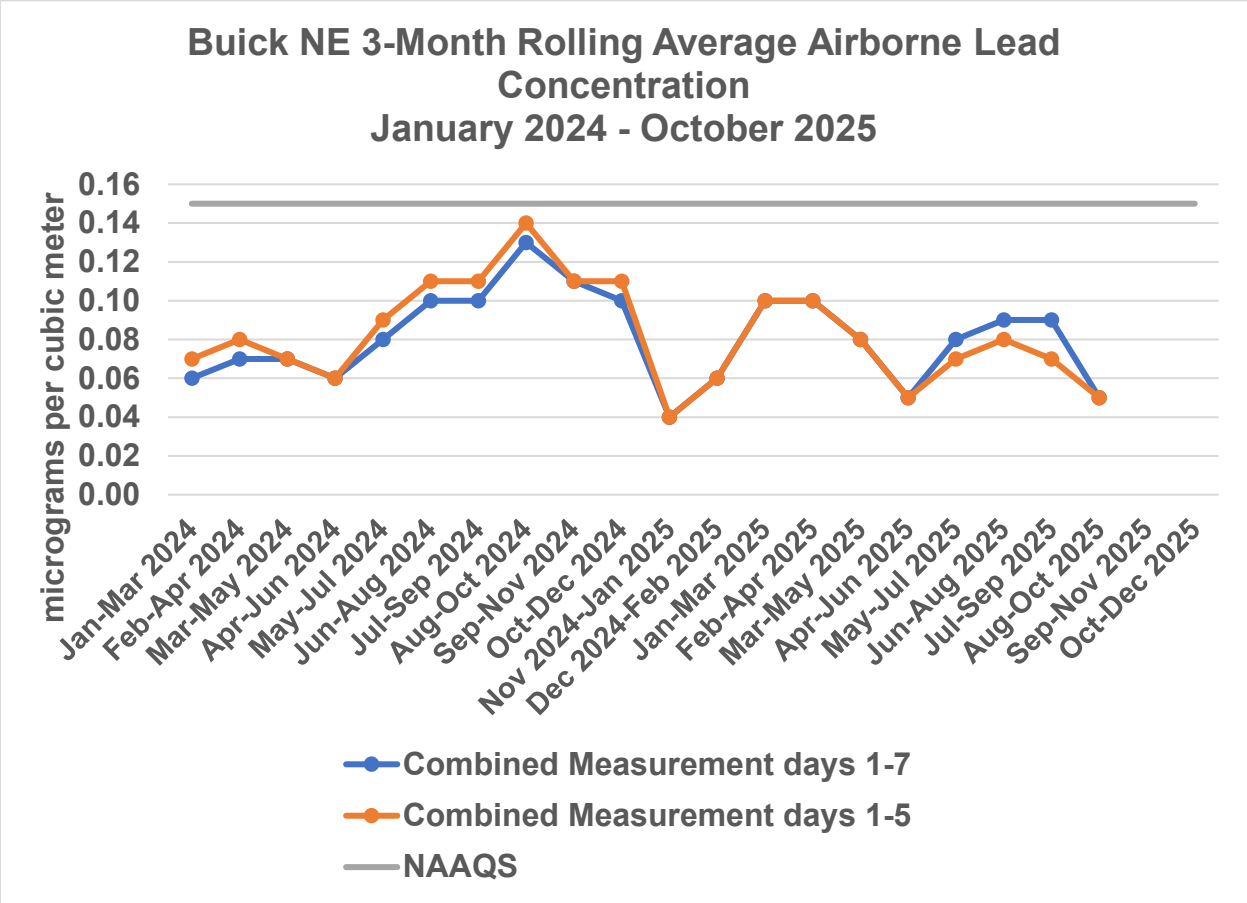
Enclosure

ec: Andrew Hawkins, EPA, Region VII
Stephen Krabbe, EPA, Region VII
Alexander Edwards, EPA, Region VII
Dr. Adam Zachary, EPA, Region VII
Bethany Head, Environmental Services Program
Will Wetherell, Environmental Services Program

Attachment A
December 9, 2025 Letter to EPA

Figure 1.

Buick NE 3-Month Rolling Average Airborne Lead Concentration
January 2024 - October 2025



Appendix 2

MISSOURI
DEPARTMENT OF
NATURAL RESOURCES

Mike Kehoe
Governor

Kurt U. Schaefer
Director

December 9, 2025

Jim Macy
Regional Administrator
U.S. Environmental Protection Agency
11201 Renner Boulevard
Kansas City, KS 66219

RE: Combining Pb Data from Two Primary Quality Assurance Organizations (PQAO)
Doe Run Buick PQAO 1290 – Buick Northeast; AQS-ID 29-093-9008
Environmental Services Program PQAO 0588 – Buick Northeast AQS-ID; 29-093-0034

Regional Administrator Macy:

The Missouri Department of Natural Resources' Air Pollution Control Program received a letter from the United States Environmental Protection Agency (EPA) on July 1, 2025. The letter was in response to an email from the department to EPA requesting clarification on whether data collected by two Principal Quality Assurance Organizations (PQAO) at a single monitoring site, Buick Northeast, could be combined to determine compliance with the 2008 Pb National Ambient Air Quality Standard (NAAQS). The letter from EPA is included in **Attachment 1**. The department reviewed the letter and is providing this letter as a response to the requested information in an effort to further the dialogue with EPA about which lead sampler data at the Buick Northeast site may be eligible to be combined and the path forward.

The department performed the requested on-site measurements to determine which Doe Run operated samplers may meet the collocation criteria. Doe Run operates seven lead samplers at the Buick Northeast site. One sampler is scheduled to run every day. The same sampler runs the same day of the week every week.

The department measured from the department operated lead sampler that is currently designated as primary to the seven Doe Run operated samplers. The department also measured from the department operated lead sampler that is currently designated as collocated to the seven Doe Run operated samplers. Diagrams displaying the measurements, sampler numbers, and the day of the week a sampler operates, as well as two photos of the site are included in **Attachment 2**. Based on the department operated primary instrument, five of the seven Doe Run operated samplers may qualify as collocated instruments with the department's primary instrument. Based on the department operated collocated instrument, none of the Doe Run operated samplers would qualify as collocated. In the event the data could be combined, the department would continue to consider the department operated primary lead sampler the primary lead sampler.

The department coordinated with Doe Run for each unique sampler number and confirmed the day that each sampler was scheduled to run. Doe Run submits detailed data sheets to the department monthly. Information from the detailed data sheets for sample data collected in 2024 is included in **Attachment 3**. For the sampling occurring at the Buick Northeast site, among other things, the detailed data sheets include the filter number, sampler number, and date. The department confirmed the same instruments sampled on the same day of the week each week.

The instruments operated by Doe Run sampling on Friday (Sampler Number – 7366) and Saturday (Sampler Number 3079) exceed the four-meter inlet to inlet maximum distance limit in 40 CFR Part 58 Appendix A.3.4.4 to qualify as collocated with the department operated primary lead sampler. Doe Run sampler numbers 6941, 10961, 7365, 6794, and 7576, operating on Monday, Tuesday, Wednesday, Thursday, and Sunday, respectively, satisfy the 40 CFR Part 58 Appendix A.3.4.4 distance requirements to qualify as collocated with the department operated primary sampler.

The department extracted 2024 lead data for the Doe Run operated site, AQS-ID 29-093-9008 from in AQS from: https://www.epa.gov/outdoor-air-quality-data/interactive-map-air-quality-monitors. The department added the day of week and sampler number and removed any sample data that was collected on a Friday or Saturday in 2024. The dates that have sample data that may qualify as collocated with the department's primary lead sampler are included in **Attachment 4**.

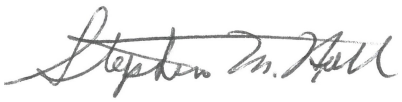
The department will further coordinate with EPA on combining the department and Doe Run data in AQS, if after review of the information provided in this letter and the associated attachments, EPA agrees with the department's finding that the five samplers at the Buick Northeast site qualify as collocated with the department operated primary instrument according to 40 CFR Part 58 Appendix A.3.4.4.

Also, if EPA agrees that the five Doe Run Samplers qualify as collocated with the department operated primary sampler, the department will continue dialogue with EPA and Doe Run about combining the data going forward. The department generally agrees with this approach, but additional dialogue is needed including, but not limited to understanding how this would be managed in AQS, what Doe Run would do with the non-collocated monitors (e.g. move, request a waiver, discontinue, etc.), if Doe Run and the department could remain separate PQAOs, and how the data would be managed if one of the PQAOs failed to meet quality assurance requirements that may invalidate data (e.g. Upper Bound Coefficient of Variance).

If you have questions regarding this letter or the enclosures, please contact Josh Vander Veen with the Department's Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102, or by telephone at 573-751-8328.

Sincerely,

AIR POLLUTION CONTROL PROGRAM



Stephen M. Hall
Director
SMH:jvv

Enclosure

ec: Keith Johnson, EPA, Region VII
Andrew Hawkins, EPA, Region VII
James Regehr, EPA, Region VII
Stephen Krabbe, EPA, Region VII
Alexander Edwards, EPA, Region VII
Dr. Adam Zachary, EPA, Region VII
Bethany Head, Environmental Services Program
Will Wetherell, Environmental Services Program
Kurt Heine, Air Pollution Control Program
Josh Vander Veen, Air Pollution Control Program

Attachment 1
July 1, 2025 Letter from EPA

REGION 7 ADMINISTRATOR

LENEXA, KS 66219

June 30, 2025

Mr. Stephen Hall
Director
Air Pollution Control Program
Missouri Department of Natural Resources
Department of Environmental Quality
P.O. Box 176
Jefferson City, Missouri 65102-0716

Dear Mr. Hall:

On March 7, 2025, my staff received an email from the Missouri Department of Natural Resources asking if ambient air lead monitoring data collected by two Principal Quality Assurance Organizations at a single monitoring site, Doe Run Buick Northeast, could be combined to determine compliance with the 2008 Pb National Ambient Air Quality Standard.

Doe Run Buick Northeast, the monitoring location north of the Doe Run Company's Buick Resource Recycling Facility, hosts ambient lead monitors operated by the state and monitors operated by the Doe Run facility. The state-operated monitors sample on a 1 of 6-day schedule while the Doe Run-operated monitors sample on a 1 of 1-day schedule. There are two site identification numbers within the same monitoring site, ID# 29-093-0034 (MoDNR), and ID #29-093-9008 (Doe Run). The U.S. Environmental Protection Agency's Air Quality System automatically performs calculations to compare ambient monitoring data to the NAAQS for each AQS Site ID.

Region 7 has determined, based on the regulations set forth in 40 Code of Federal Regulations 58 and 40 CFR 50 Appendix R, that the data collected by monitors at the Doe Run Buick Northeast monitoring site could be combined to determine compliance with the 2008 Pb NAAQS if monitor collocation criteria are met.

To allow the EPA to compile a 2024 site-level dataset for Appendix R calculations, please perform on-site measurements to determine which Doe Run monitors meet the collocation criteria and provide a diagram showing individual monitors and distances. If only a subset of Doe Run monitors meet the collocation criteria, please identify the dates on which valid data was collected by the Doe Run monitors meeting collocation criteria.

Region 7 also recommends that the MoDNR include the following information in future annual monitoring network plans:

- Please designate a primary sampler as described in Appendix R 3(d)(i).
- Please identify which monitors meet the collocation criteria for High Volume Pb-Total Suspended Particulate samplers of between 2.0 and 4.0 meters.
- Please describe how the MoDNR intends to use data collected by the Doe Run PQAO to create a site-parameter dataset when performing Appendix R calculations.

For future automated calculation in AQS, please consult with Region 7 staff to make necessary changes that accurately reflect the intentions of the MoDNR for the use of data collected in 2024 and subsequent years.

Sincerely,

JAMES
MACY

Digitally signed by JAMES MACY
Date: 2025.06.30 12:16:19 -05'00'

Jim Macy

Enclosure

Enclosure

The EPA's description of position and applicable regulation

The monitoring location north of the Doe Run Company's Buick Resource Recycling Facility, Buick NE, hosts ambient Pb Total Suspended Particulate (Pb-TSP, AQS Pollutant ID 14219) monitors operated by the State PQAO and the Doe Run PQAO. The state-operated monitors sample on a 1:6 schedule, while the Doe Run-operated monitors sample on a 1:1 schedule. Within the EPA's Air Quality System, two sites exist with Site IDs 29-093-0034 (MoDNR) and 29-093-9008 (Doe Run). Ambient Pb-TSP monitoring data from each PQAO is uploaded to the PQAO's AQS Site ID. AQS automatically performs calculations to compare ambient monitoring data to the NAAQS for each AQS Site ID.

The site is located within the Buick/Viburnum Trend nonattainment area and contingency measures within the 2013 Attainment Demonstration State Implementation Plan are triggered by exceedances of the NAAQS. The form of the 2008 Pb NAAQS is defined within 40 CFR 50.16 as the maximum arithmetic 3-month mean concentration for a 3-year period.

40 CFR 50, Appendix R 3(a):

> *"All valid FRM/FEM Pb-TSP data and all valid FRM/FEM Pb-PM_{10} data submitted to EPA's AQS, or otherwise available to EPA, meeting the requirements of part 58 of this chapter including appendices A, C, and E shall be used in design value calculations."*

Pb-TSP data collected by the MoDNR PQAO and Doe Run PQAO are uploaded to AQS and have been certified by the MoDNR. Certified data is considered valid for comparison to the NAAQS.

40 CFR 50, Appendix R 3(d)(i):

> *"The starting dataset for a site-parameter shall consist of the measured daily concentrations recorded from the designated primary FRM/FEM monitor for that parameter. The primary monitor for each parameter shall be designated in the appropriate state or local agency annual Monitoring Network Plan. If no primary monitor is designated, the Administrator will select which monitor to treat as primary."*

Appendix E to 40 CFR 58 defines 'site' as a geographic location and states that multiple monitoring stations may operate at a site. The 2024 MoDNR annual Monitoring Network Plan (Plan) lists the same street address for each AQS site and examination of satellite imagery shows monitors of both PQAOs positioned in close proximity. The 2024 Plan does not appear to identify a primary monitor for site-level NAAQS comparisons, although this is not required for Appendix R computations.

40 CFR 50, Appendix R 3(d)(ii):

> *"Data for the primary monitor for each parameter shall be augmented as much as possible with data from collocated (same parameter) FRM/FEM monitors. If a valid 24-hour measurement is not produced from the primary monitor for a particular day (scheduled or otherwise), but a valid sample is generated by a collocated (same parameter) FRM/FEM instrument, then that collocated value*

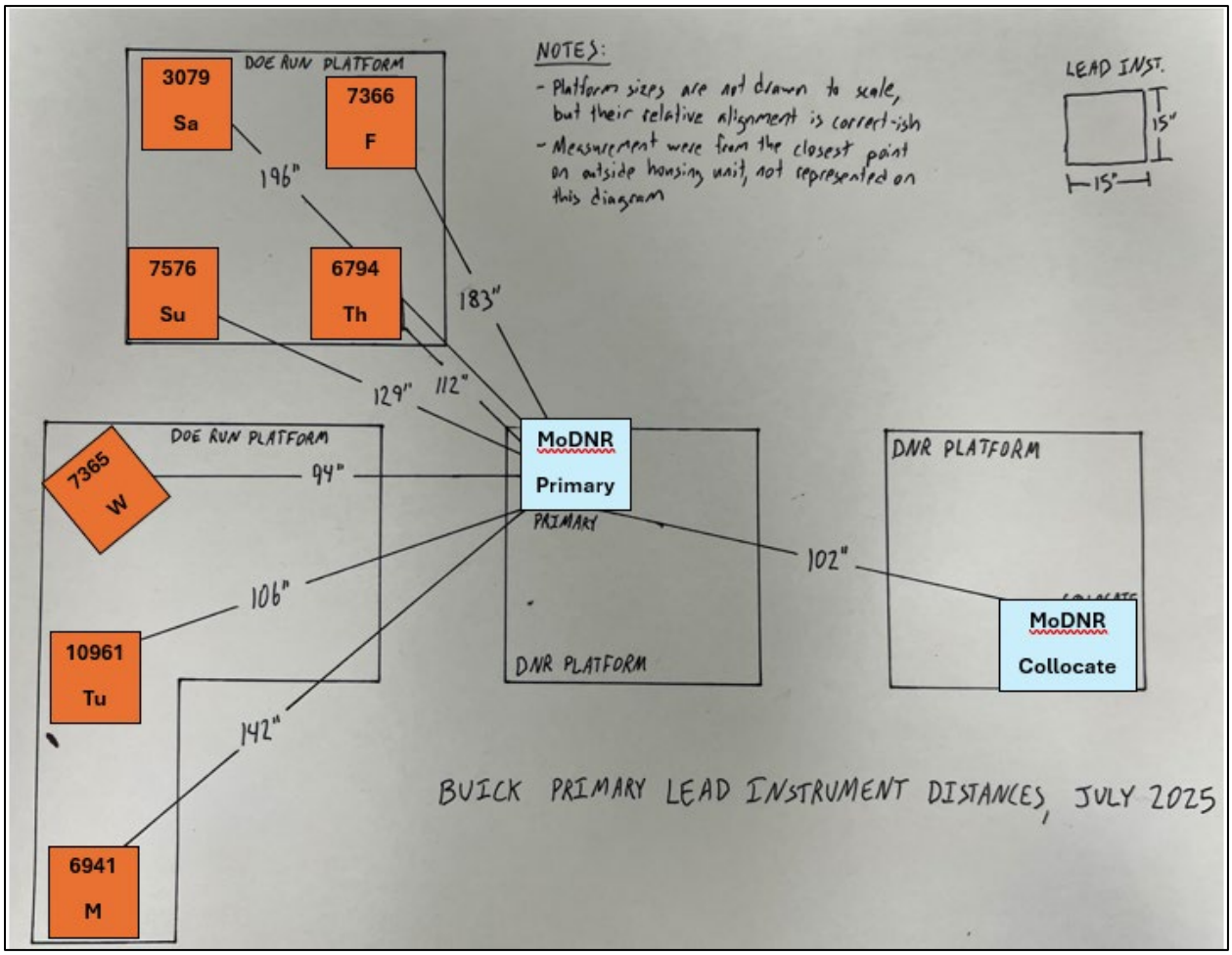
shall be considered part of the site-parameter data record (i.e., that site-parameter's monthly set of daily values). If more than one valid collocated FRM/FEM value is available, the mean of those valid collocated values shall be used as the daily value."

Appendix E to 40 CFR 58 prescribes siting criteria and Table E-3 to Section 2.7 (footnote 7) defines the distance between collocated high-volume Pb-TSP samplers as between 2.0 and 4.0 meters. Preliminary examination appears to indicate that all or a subset of Doe Run PQAO samplers may meet these criteria when using the MoDNR's more centrally positioned AQS-site-designated primary sampler, Parameter Occurrence Code (POC) 1, as the Appendix R site-level primary monitor.

Based upon Region 7's interpretation of 40 CFR Part 50, Appendix R and the relevant definitions and requirements of 40 CFR Part 58, if the MoDNR demonstrates that Doe Run's PQAO samplers meet collocation criteria, the MoDNR may request combination of the MoDNR's 1:6 data with Doe Run's 1:1 data in design value calculations for the 2008 Pb NAAQS.

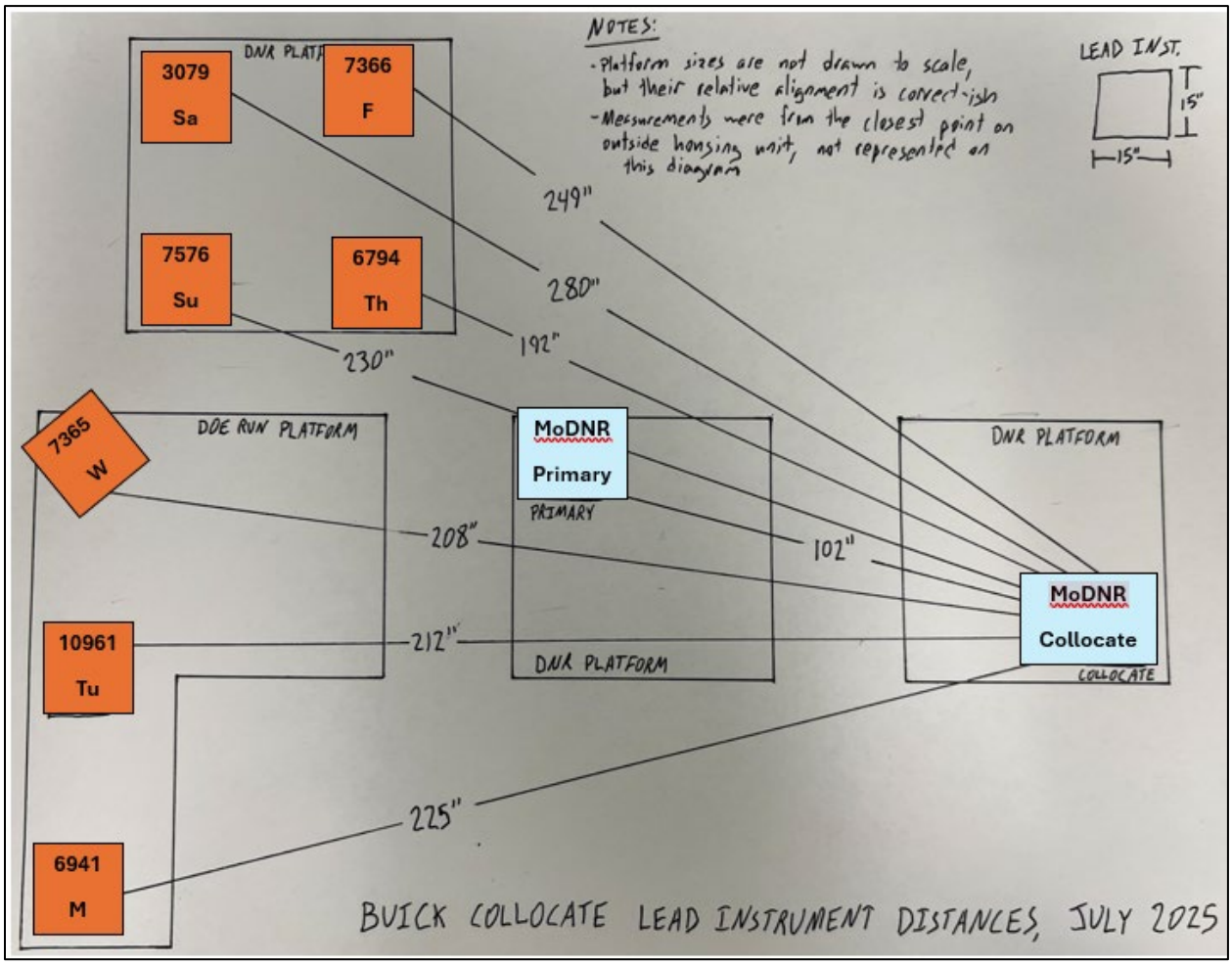
Attachment 2
Buick Northeast
Site Measurements and Photos

Distances from MoDNR Primary Pb Sampler to Other Samplers



Appendix 2

Distances from MoDNR Collocate Pb Sampler to Other Samplers



July 2025 Photo of Pb Samplers at Buick Northeast

July 2025 Photo of Pb Samplers at Buick Northeast

Attachment 3
Detailed Data Sheet Information

				Bar.	Pressure		Flow	Sample	Total	Lead
Run	Filter	Run	Temp	Pressure	Drop	Pressure	Rate	Volume	Lead	Conc.
Date	Number	Time	deg C	mm Hg	mm Hg	Ratio	m3/min	m3	ug	ug/m3
		t	Tav	Pav	Pf	Po / Pa	Qa	Va	Pb	Pb
1/1/2024	6941-10124	1429	-1.1	729.81	34.99	0.952	1.186	1695	34.1	0.020
1/2/2024	10961-10224	1438	-1.1	729.81	39.57	0.946	1.187	1707	471.26	0.276
1/3/2024	7365-10324	1453	1.2	726.51	40.50	0.944	1.189	1728	25.7	0.014
1/4/2024	6794-10424	1449	0.4	730.03	39.01	0.947	1.177	1705	24.86	0.014
1/5/2024	7366-10524	1422	-1	724.78	38.73	0.947	1.184	1684	110.6	0.065
1/6/2024	3079-10624	1436	0.1	718.18	32.85	0.954	1.181	1696	73.7	0.043
1/7/2024	7576-10724	1428	1.1	724.11	39.66	0.945	1.194	1705	22.94	0.013
1/8/2024	6941-10824	1429	0.5	721.71	39.01	0.946	1.182	1689	38.54	0.022
1/9/2024	10961-10924	1444	1	706.94	39.19	0.945	1.190	1718	68	0.039
1/10/2024	7365-11024	1454	0.2	715.34	39.29	0.945	1.189	1729	41.18	0.023
1/11/2024	6794-11124	1451	5	718.04	37.33	0.948	1.187	1722	37.88	0.021
1/12/2024	7366-11224	1427	0.4	710.31	37.42	0.947	1.187	1694	59.48	0.035
1/13/2024	3079-11324	1436	-9.6	721.71	30.42	0.958	1.168	1677	4.94	0.002
1/14/2024	7576-11424	1430	-19.1	729.51	39.19	0.946	1.155	1652	11.9	0.007
1/15/2024	6941-11524	1427	-17.3	729.58	37.98	0.948	1.149	1640	10.94	0.006
1/16/2024	10961-11624	1445	-15.5	729.28	39.01	0.947	1.159	1675	16.76	0.010
1/17/2024	7365-11724	VOID TIMER MALFUNCTION								
1/18/2024	6794-11824	1450	-2	722.61	39.38	0.946	1.171	1698	106.28	0.062
1/19/2024	7366-11924	VOID TIMER MALFUNCTION								
1/20/2024	3079-12024	1438	-13.8	736.71	30.33	0.959	1.160	1668	60.38	0.036
1/21/2024	7576-12124	1432	-8.3	735.06	40.22	0.945	1.175	1683	120.86	0.071
1/22/2024	6941-12224	1433	-1.4	729.51	45.63	0.937	1.166	1671	48.2	0.028
1/23/2024	10961-12324	1442	4.1	727.03	45.35	0.938	1.186	1710	22.94	0.013
1/24/2024	7365-12424	1424	9.5	724.63	41.15	0.943	1.204	1714	163.22	0.095
1/25/2024	6794-12524	1453	6.8	723.88	38.82	0.946	1.188	1726	20.36	0.011
1/26/2024	7366-12624	1424	4.9	727.33	36.21	0.950	1.201	1710	60.86	0.035
1/27/2024	3079-12724	1439	2.5	726.43	36.11	0.950	1.181	1699	32.18	0.018
1/28/2024	7576-12824	1432	0.3	728.31	39.84	0.945	1.193	1708	37.52	0.021
1/29/2024	6941-12924	1431	4.6	728.91	40.22	0.945	1.189	1701	153.02	0.089
1/30/2024	10961-13024	1442	6.3	724.63	46.38	0.936	1.188	1713	83.72	0.048
1/31/2024	7365-13124	1423	5.8	728.31	38.63	0.947	1.203	1712	284.9	0.166
2/1/2024	6794-20124	1451	11.2	724.79	40.40	0.944	1.193	1731	502.46	0.290
2/2/2024	7366-20224	1423	12.9	722.84	38.63	0.947	1.211	1723	24.92	0.014
2/3/2024	3079-20324	1438	9	720.66	39.56	0.945	1.187	1707	27.44	0.016
2/4/2024	7576-20424	1430	6.6	719.01	40.03	0.944	1.203	1720	28.4	0.016
2/5/2024	6941-20524	1430	5.5	724.64	40.87	0.944	1.189	1700	23	0.013
2/6/2024	10961-20624	1441	7.8	727.41	37.79	0.948	1.207	1739	15.8	0.009
2/7/2024	7365-20724	1423	8.6	726.06	35.74	0.951	1.213	1726	25.46	0.014
2/8/2024	6794-20824	1451	11.7	721.11	41.24	0.943	1.193	1731	153.8	0.088
2/9/2024	7366-20924	1424	13.2	721.11	38.82	0.946	1.210	1723	63.08	0.036
2/10/2024	3079-21024	1435	5.6	723.28	41.15	0.943	1.177	1689	16.88	0.009
2/11/2024	7576-21124	1430	3.3	723.66	40.50	0.944	1.197	1712	20.78	0.012
2/12/2024	6941-21224	1431	1.9	720.73	41.15	0.943	1.181	1690	22.64	0.013
2/13/2024	10961-21324	1440	5.4	725.08	41.24	0.943	1.197	1724	680.48	0.394
2/14/2024	7365-21424	1422	10	726.51	41.71	0.943	1.205	1714	51.44	0.030
2/15/2024	6794-21524	1451	8.9	725.91	41.80	0.942	1.186	1721	171.08	0.099
2/16/2024	7366-21624	1425	-0.2	724.93	40.03	0.945	1.183	1686	19.22	0.011
2/17/2024	3079-21724	1437	-5.6	729.88	41.89	0.943	1.156	1661	17.6	0.010

				Bar.	Pressure		Flow	Sample	Total	Lead
Run	Filter	Run	Temp	Pressure	Drop	Pressure	Rate	Volume	Lead	Conc.
Date	Number	Time	deg C	mm Hg	mm Hg	Ratio	m3/min	m3	ug	ug/m3
		t	Tav	Pav	Pf	Po / Pa	Qa	Va	Pb	Pb
2/18/2024	7576-21824	1432	1	725.61	41.15	0.943	1.000	1432	14.42	0.010
2/19/2024	6941-21924	1431	6.7	726.28	43.11	0.941	1.187	1699	311.6	0.183
2/20/2024	10961-22024	1442	9.9	727.56	43.57	0.940	1.200	1730	314.78	0.181
2/21/2024	7365-22124	1424	12.8	723.21	43.11	0.940	1.207	1719	20.66	0.012
2/22/2024	6794-22224	1451	14	717.06	42.55	0.941	1.195	1734	79.64	0.045
2/23/2024	7366-22324	1425	9.6	720.21	40.40	0.944	1.200	1710	41	0.023
2/24/2024	3079-22424	1438	5.9	724.03	42.92	0.941	1.174	1688	26.72	0.015
2/25/2024	7576-22524	1432	12.3	720.81	41.90	0.942	1.212	1736	116.42	0.067
2/26/2024	6941-22624	1432	16.7	718.03	40.50	0.944	1.210	1733	124.1	0.071
2/27/2024	10961-22724	1439	20.5	710.98	40.78	0.943	1.224	1761	131.54	0.074
2/28/2024	7365-22824	1426	0.8	726.28	40.59	0.944	1.189	1696	19.4	0.011
2/29/2024	6794-22924	1451	2.2	732.96	42.74	0.942	1.173	1702	23.66	0.013
3/1/2024	7366-30124	1427	3.3	726.66	41.62	0.943	1.187	1694	25.64	0.015
3/2/2024	3079-30224	1437	8.3	724.78	42.64	0.941	1.180	1696	31.16	0.018
3/3/2024	7576-30324	1430	13.3	721.48	42.18	0.942	1.000	1430	38.06	0.026
3/4/2024	6941-30424	1431	17.8	721.41	42.64	0.941	1.209	1730	70.82	0.040
3/5/2024	10961-30524	1441	13.7	721.63	42.08	0.942	1.210	1744	101.3	0.058
3/6/2024	7365-30624	1426	10.9	723.58	42.08	0.942	1.206	1720	12.8	0.007
3/7/2024	6794-30724	1453	8.3	722.08	42.27	0.941	1.184	1720	26.9	0.015
3/8/2024	7366-30824	1429	11.2	720.06	41.90	0.942	1.200	1715	48.86	0.028
3/9/2024	3079-30924	1439	5	723.88	42.46	0.941	1.174	1689	79.52	0.047
3/10/2024	7576-31024	1430	5.6	728.31	42.08	0.942	1.000	1430	29.24	0.020
3/11/2024	6941-31124	1432	10.9	728.08	42.46	0.942	1.197	1714	292.16	0.170
3/12/2024	10961-31224	1444	14.2	723.21	42.46	0.941	1.209	1746	596.12	0.341
3/13/2024	7365-31324	1453	17.6	719.68	43.20	0.940	1.216	1767	145.7	0.082
3/14/2024	6794-31424	1451	18.7	720.21	40.50	0.944	1.000	1451	193.52	0.133
3/15/2024	7366-31524	1425	10.9	725.53	39.94	0.945	1.204	1716	157.16	0.091
3/16/2024	3079-31624	1438	12.3	723.88	38.73	0.946	1.196	1720	28.58	0.016
3/17/2024	7576-31724	1430	7.4	723.66	41.15	0.943	1.204	1722	34.64	0.020
3/18/2024	6941-31824	1430	-0.6	728.23	41.43	0.943	1.176	1682	636.5	0.378
3/19/2024	10961-31924	1264	8	723.66	41.71	0.942	1.199	1516	31.04	0.020
3/20/2024	7365-32024	1400	12	724.11	41.99	0.942	1.208	1691	23.18	0.013
3/21/2024	6794-32124	1448	8.9	726.06	39.10	0.946	1.192	1726	14.72	0.008
3/22/2024	7366-32224	1426	10.9	722.61	38.91	0.946	1.206	1720	15.32	0.008
3/23/2024	3079-32324	1442	4.7	727.86	39.10	0.946	1.179	1700	27.38	0.016
3/24/2024	7576-32424	1432	10.1	721.26	38.82	0.946	1.000	1432	24.44	0.017
3/25/2024	6941-32524	1430	12	714.28	40.31	0.944	1.201	1717	24.74	0.014
3/26/2024	10961-32624	1442	3.9	717.21	41.34	0.942	1.191	1717	10.46	0.006
3/27/2024	7365-32724	1431	4.9	726.28	41.43	0.943	1.196	1711	27.8	0.016
3/28/2024	6794-32824	1447	11	727.71	39.94	0.945	1.194	1728	92.48	0.053
3/29/2024	7366-32924	1423	15.5	723.73	39.84	0.945	1.213	1726	398.18	0.230
3/30/2024	3079-33024	1442	18.4	721.18	40.22	0.944	1.203	1735	319.88	0.184
3/31/2024	7576-33124	1429	19.3	719.68	39.47	0.945	1.000	1429	472.1	0.330

				Bar.	Pressure		Flow	Sample	Total	Lead
Run	Filter	Run	Temp	Pressure	Drop	Pressure	Rate	Volume	Lead	Conc.
Date	Number	Time	deg C	mm Hg	mm Hg	Ratio	m3/min	m3	ug	ug/m3
		t	Tav	Pav	Pf	Po / Pa	Qa	Va	Pb	Pb
4/1/2024	6941-40124	1429	20.3	717.73	40.59	0.943	1.216	1738	242.18	0.139
4/2/2024	10961-40224	1442	11.2	714.81	41.43	0.942	1.205	1738	42.74	0.024
4/3/2024	7365-40324	1430	5.1	715.33	41.15	0.942	1.195	1709	26.3	0.015
4/4/2024	6794-40424	1448	6.9	719.53	40.96	0.943	1.184	1714	22.22	0.012
4/5/2024	7366-40524	1423	7.6	726.13	40.68	0.944	1.196	1702	19.82	0.011
4/6/2024	3079-40624	1442	9.6	725.68	39.38	0.946	1.189	1715	18.02	0.010
4/7/2024	7576-40724	1430	16.1	719.16	41.06	0.943	1.000	1430	140.54	0.098
4/8/2024	6971-40824	1433	18.4	722.31	41.62	0.942	1.211	1735	563.06	0.324
4/9/2024	10961-40924	1443	17.3	722.61	41.43	0.943	1.218	1758	48.5	0.027
4/10/2024	7365-41024	1789	12.5	718.93	41.24	0.943	1.210	2165	20.78	0.009
4/11/2024	6794-41124	1448	12.6	717.28	42.18	0.941	1.192	1726	27.86	0.016
4/12/2024	7366-41224	1425	12.9	725.53	42.08	0.942	1.204	1716	148.28	0.086
4/13/2024	3079-41324	1443	20	726.43	40.50	0.944	1.206	1740	279.68	0.160
4/14/2024	7576-41424	1432	23.1	721.63	43.02	0.940	1.000	1432	319.1	0.222
4/15/2024	6941-41524	1429	22.9	722.08	42.92	0.941	1.218	1741	138.2	0.079
4/16/2024	10961-41624	1442	20.3	719.38	42.83	0.940	1.220	1759	127.88	0.072
4/17/2024	7365-41724	1428	22.4	721.48	42.64	0.941	1.226	1751	536	0.306
4/18/2024	**6794-41824**	1448	19	722.61	48.62	0.933	1.193	1727	47	0.027
4/19/2024	7366-41924	1428	10.7	728.16	35.55	0.951	1.211	1729	18.92	0.010
4/20/2024	3079-42024	1441	9.6	730.26	35.65	0.951	1.195	1722	23.9	0.013
4/21/2024	7576-42124	1429	8.6	729.81	36.30	0.950	1.000	1429	23.24	0.016
4/22/2024	6941-42224	1432	12.4	727.41	35.55	0.951	1.212	1736	131.12	0.075
4/23/2024	10961-42324	1443	14.1	723.28	36.02	0.950	1.221	1762	219.32	0.124
4/24/2024	7365-42424	1429	14.3	727.63	36.02	0.950	1.223	1748	28.82	0.016
4/25/2024	**6794-42524**	1448	9.8	728.01	47.12	0.935	1.179	1707	11	0.006
4/26/2024	7366-42624	1425	13.8	721.56	35.93	0.950	1.217	1734	36.26	0.020
4/27/2024	3079-42724	1442	18.1	723.13	35.37	0.951	1.211	1746	28.94	0.016
4/28/2024	7576-42824	1430	18.5	722.53	36.02	0.950	1.000	1430	29.9	0.020
4/29/2024	6941-42924	1430	17.3	721.93	35.83	0.950	1.220	1745	104.36	0.059
4/30/2024	10961-43024	1442	20.3	722.83	35.55	0.951	1.235	1781	220.1	0.123
5/1/2024	7365-50124	1429	20.5	722.61	35.93	0.950	1.235	1765	222.68	0.126
5/2/2024	**6794-50224**	1448	19.8	721.33	46.66	0.935	1.198	1735	39	0.022
5/3/2024	7366-50324	1426	18.4	723.21	35.93	0.950	1.225	1747	23.48	0.013
5/4/2024	3079-50424	1442	19.3	723.66	36.02	0.950	1.213	1749	100.34	0.057
5/5/2024	7576-50524	1429	15.1	724.63	36.02	0.950	1.000	1429	31.46	0.022
5/6/2024	6941-50624	1432	18.5	720.88	36.21	0.950	1.222	1750	93.98	0.053
5/7/2024	10961-50724	1441	18.7	715.63	36.30	0.949	1.229	1771	246.26	0.139
5/8/2024	7365-50824	1429	19.2	715.41	36.21	0.949	1.231	1759	258.02	0.146
5/9/2024	**6794-50924**	1447	18.9	719.23	47.60	0.934	1.196	1731	13	0.007
5/10/2024	7366-51024	1427	15.3	723.58	35.83	0.950	1.220	1741	14.84	0.008
5/11/2024	3079-51124	1442	17.4	723.13	33.69	0.953	1.213	1749	141.26	0.080
5/12/2024	7576-51224	1429	20.2	722.38	35.74	0.951	1.000	1429	71.18	0.049
5/13/2024	6941-51324	1430	16.8	719.23	36.86	0.949	1.000	1430	11.36	0.007

				Bar.	Pressure		Flow	Sample	Total	Lead
Run	Filter	Run	Temp	Pressure	Drop	Pressure	Rate	Volume	Lead	Conc.
Date	Number	Time	deg C	mm Hg	mm Hg	Ratio	m3/min	m3	ug	ug/m3
		t	Tav	Pav	Pf	Po / Pa	Qa	Va	Pb	Pb
5/14/2024	10961-51424	1442	18	716.23	36.95	0.948	1.226	1768	15.62	0.008
5/15/2024	7365-51524	1429	18.1	720.21	36.95	0.949	1.229	1756	14.9	0.008
5/16/2024	**6794-51624**	1448	18	721.03	48.15	0.933	1.199	1736	167	0.096
5/17/2024	7366-51724	1424	18.5	719.76	36.11	0.950	1.225	1744	515.96	0.295
5/18/2024	3079-51824	1471	21.4	721.71	35.37	0.951	1.218	1792	81.5	0.045
5/19/2024	7576-51924	1429	23.9	723.96	36.49	0.950	1.000	1429	57.68	0.040
5/20/2024	6941-52424	1430	22.9	722.38	36.58	0.949	1.000	1430	108.85	0.076
5/21/2024	10961-52124	1442	23.7	719.53	37.14	0.948	1.237	1784	358.84	0.201
5/22/2024	7365-52224	1429	18.4	722.16	36.49	0.949	1.230	1758	30.72	0.017
5/23/2024	**6794-52324**	1448	19.6	721.63	48.43	0.933	1.195	1730	161	0.093
5/24/2024	7366-52424	1424	22.3	719.38	36.11	0.950	1.233	1756	94.69	0.053
5/25/2024	3079-52524	1441	20.2	721.03	35.00	0.951	1.215	1751	46.77	0.026
5/26/2024	7576-52624	1428	20.1	719.23	36.58	0.949	1.000	1428	64.56	0.045
5/27/2024	6941-52724	1432	20	721.41	35.74	0.950	1.225	1754	17.54	0.009
5/28/2024	10961-52824	1443	19.8	726.51	36.21	0.950	1.233	1779	22.28	0.012
5/29/2024	7365-52924	1427	18.9	728.4	36.21	0.950	1.232	1758	12.86	0.007
5/30/2024	**6794-53024**	1629	18.8	727.71	47.78	0.934	1.193	1943	10	0.005
5/31/2024	7366-53124	1426	18.4	725.98	36.49	0.950	1.225	1747	13.4	0.007
6/1/2024	3079-60124	1441	19.6	723.21	35.74	0.951	1.214	1749	64.82	0.037
6/2/2024	7576-60224	1431	21.9	723.88	36.86	0.949	1.239	1773	34.82	0.019
6/3/2024	6941-60324	1429	22.6	720.58	36.85	0.949	1.228	1755	29.84	0.017
6/4/2024	10961-60424	1441	21.5	718.18	37.51	0.948	1.233	1777	15.62	0.008
6/5/2024	7365-60524	1427	21.7	717.88	37.33	0.948	1.234	1761	16.94	0.009
6/6/2024	**6794-60624**	1448	21.6	720.73	48.80	0.932	1.197	1733	20	0.011
6/7/2024	7366-60724	1425	22	723.28	36.39	0.950	1.232	1756	40.46	0.023
6/8/2024	3079-60824	1441	22.8	721.18	34.34	0.952	1.222	1761	184.4	0.104
6/9/2024	7576-60924	1430	17.6	723.36	36.77	0.949	1.000	1430	78.14	0.054
6/10/2024	6941-61024	1429	18.3	723.73	37.33	0.948	1.219	1742	31.88	0.018
6/11/2024	10961-61124	1447	19.3	724.71	36.65	0.949	1.230	1780	34.52	0.019
6/12/2024	7365-61224	1429	22.2	724.71	37.33	0.948	1.235	1765	423.92	0.240
6/13/2024	**6794-61324**	1448	24.4	723.51	49.46	0.932	1.201	1739	240	0.138
6/14/2024	7366-61424	1424	24.5	724.56	36.49	0.950	1.237	1761	51.86	0.029
6/15/2024	3079-61524	1442	24.5	724.78	35.83	0.951	1.224	1765	105.92	0.060
6/16/2024	7576-61624	1429	26.4	724.51	37.14	0.949	1.248	1783	106.22	0.059
6/17/2024	6941-61724	1429	25.1	723.81	37.89	0.948	1.231	1759	16.52	0.009
6/18/2024	10961-61824	1443	23.4	725.61	37.42	0.948	1.236	1784	49.76	0.027
6/19/2024	7365-61924	1427	24.6	729.28	37.70	0.948	1.240	1769	11.9	0.006
6/20/2024	**6794-62024**	1448	24.2	731.24	45.26	0.938	1.209	1751	39	0.022
6/21/2024	7366-62124	1424	24.9	729.73	37.23	0.949	1.236	1760	79.94	0.045
6/22/2024	3079-62224	1441	26.2	725.23	34.10	0.953	1.229	1771	656.42	0.370
6/23/2024	7576-62324	1430	27.3	722.31	37.98	0.947	1.247	1783	160.82	0.090
6/24/2024	6941-62424	1432	27.2	723.66	39.57	0.945	1.231	1763	81.92	0.046
6/25/2024	10961-62524	1445	27.7	722.61	39.20	0.946	1.206	1743	213.74	0.122
6/26/2024	7365-62624	1427	21.2	721.18	38.45	0.947	1.232	1758	26.54	0.015
6/27/2024	**6974-62724**	1449	23.7	722.91	44.88	0.938	1.209	1752	11	0.006
6/28/2024	7366-62824	1423	24.1	720.88	37.23	0.948	1.233	1755	27.38	0.015
6/29/2024	3079-62924	1442	26.9	724.26	36.95	0.949	1.225	1766	133.88	0.075
6/30/2024	7576-63024	1440	23	729.06	37.42	0.949	1.000	1440	15.14	0.010

				Bar.	Pressure		Flow	Sample	Total	Lead
Run	Filter	Run	Temp	Pressure	Drop	Pressure	Rate	Volume	Lead	Conc.
Date	Number	Time	deg C	mm Hg	mm Hg	Ratio	m3/min	m3	ug	ug/m3
		t	Tav	Pav	Pf	Po / Pa	Qa	Va	Pb	Pb
7/1/2024	6941-70124	1432	19.8	728.38	36.95	0.949	1.133	1622	11.48	0.007
7/2/2024	10961-70224	1445	23.8	724.33	36.77	0.949	1.239	1790	14.42	0.008
7/3/2024	7365-70324	1427	25.2	724.33	42.55	0.941	1.231	1757	62.9	0.035
7/4/2024	6794-70424	1448	27	722.53	43.86	0.939	1.210	1752	35	0.019
7/5/2024	7366-70524	1424	23.2	723.36	36.39	0.950	1.234	1757	15.2	0.008
7/6/2024	3079-70624	1441	22.8	725.31	37.33	0.949	1.218	1755	50.06	0.028
7/7/2024	7576-70724	1429	24.2	724.93	37.33	0.949	1.243	1776	15.26	0.008
7/8/2024	6941-70824	1431	21.6	724.63	36.86	0.949	1.206	1726	64.58	0.037
7/9/2024	10961-70924	1445	18.2	722.16	36.67	0.949	1.228	1774	14.06	0.007
7/10/2024	7365-71024	1428	22.2	724.78	36.86	0.949	1.236	1765	7.46	0.004
7/11/2024	6794-71124	1450	24.6	725.53	44.32	0.939	1.210	1755	987	0.562
7/12/2024	7366-71224	1418	22.9	727.33	36.67	0.950	1.234	1750	186.2	0.106
7/13/2024	3079-71324	1441	24.0	728.68	37.05	0.949	1.220	1758	123.32	0.070
7/14/2024	7576-71424	1429	26.7	726.58	36.77	0.949	1.000	1429	548	0.383
7/15/2024	6941-71524	1430	27.4	723.51	37.89	0.948	1.236	1767	683.12	0.386
7/16/2024	10961-71624	1445	23.8	722.53	37.14	0.949	1.239	1790	1714.58	0.957
7/17/2024	7365-71724	1428	23.4	724.63	37.14	0.949	1.239	1769	234.14	0.132
7/18/2024	6794-71824	1448	20.4	727.93	44.51	0.939	1.203	1742	0	0.000
7/19/2024	7366-71924	1426	19.4	728.01	36.58	0.950	1.227	1750	8.18	0.004
7/20/2024	3079-72024	1442	20	727.11	21.09	0.971	1.242	1791	37.88	0.021
7/21/2024	7576-72124	1430	20.6	726.66	36.77	0.949	1.000	1430	14.96	0.010
7/22/2024	6941-72224	1429	22.3	725.76	37.51	0.948	1.226	1752	36.5	0.020
7/23/2024	10961-72324	1444	23.1	726.36	37.23	0.949	1.237	1786	284.18	0.159
7/24/2024	7365-72424	1428	24.4	728.16	37.33	0.949	1.241	1772	272.06	0.153
7/25/2024	6794-72524	1449	25.2	728.53	45.54	0.937	1.208	1750	165	0.094
7/26/2024	7366-72624	1423	23.4	727.18	36.67	0.950	1.235	1757	42.44	0.024
7/27/2024	3079-72724	1440	21.9	725.31	36.77	0.949	1.216	1751	62.42	0.035
7/28/2024	7576-72824	1427	23.8	724.71	36.67	0.949	1.243	1774	367.52	0.207
7/29/2024	6941-72924	1430	25.5	723.43	37.23	0.949	1.233	1763	708.08	0.401
7/30/2024	10961-73024	1444	28	723.21	36.95	0.949	1.246	1799	82.34	0.045
7/31/2024	7365-73124	1427	28.3	724.11	36.95	0.949	1.248	1781	237.2	0.133
8/1/2024	6794-80124	1450	27.7	725.16	44.88	0.938	1.216	1763	147	0.083
8/2/2024	7366-80224	1424	24.7	725.31	37.33	0.949	1.235	1759	62.3	0.035
8/3/2024	3079-80324	1442	24.7	725.23	37.61	0.948	1.220	1759	48.14	0.027
8/4/2024	7576-80424	1430	27	725.68	37.61	0.948	1.000	1430	245	0.171
8/5/2024	6941-80524	1430	27.5	726.21	37.98	0.948	1.235	1766	1413.56	0.800
8/6/2024	10961-80624	1445	26.9	724.26	37.61	0.948	1.110	1604	459.14	0.286
8/7/2024	7365-80724	1427	19.6	723.36	38.26	0.947	1.229	1754	27.08	0.015
8/8/2024	6794-80824	1448	21.7	723.36	43.76	0.940	1.208	1749	20	0.011
8/9/2024	7366-80924	1422	21.1	726.66	37.70	0.948	1.229	1748	33.2	0.018
8/10/2024	3079-81024	1441	18.9	729.21	36.40	0.950	1.210	1744	21.44	0.012
8/11/2024	7576-81124	1429	20.7	728.16	37.70	0.948	1.234	1763	18.26	0.010
8/12/2024	6941-81224	1429	20.3	726.73	37.05	0.949	1.223	1748	21.38	0.012
8/13/2024	10961-81324	1442	21.3	726.66	37.05	0.949	1.235	1781	31.94	0.017
8/14/2024	7365-81424	1426	21.4	726.36	37.33	0.949	1.236	1763	11.96	0.006
8/15/2024	6794-81524	1448	26.1	723.88	42.55	0.941	1.217	1762	160	0.090
8/16/2024	7366-81624	1423	26.2	723.43	36.11	0.950	1.239	1763	685.64	0.388
8/17/2024	3079-81724	1442	26.2	723.43	34.53	0.952	1.228	1771	377.78	0.213
8/18/2024	7576-81824	1429	23.4	724.78	35.65	0.951	1.246	1781	58.88	0.033
8/19/2024	6941-81924	1432	22	726.73	36.02	0.950	1.228	1758	29.6	0.016
8/20/2024	10961-82024	1445	19.3	728.83	36.67	0.950	1.233	1782	19.58	0.010
8/21/2024	7365-82124	1427	17.5	729.36	36.95	0.949	1.229	1754	20.3	0.011

Appendix 2

				Bar.	Pressure		Flow	Sample	Total	Lead
Run	Filter	Run	Temp	Pressure	Drop	Pressure	Rate	Volume	Lead	Conc.
Date	Number	Time	deg C	mm Hg	mm Hg	Ratio	m3/min	m3	ug	ug/m3
		t	Tav	Pav	Pf	Po / Pa	Qa	Va	Pb	Pb
8/22/2024	6794-82224	1451	18.7	728.98	43.11	0.941	1.202	1744	10	0.005
8/23/2024	7366-82324	1422	23.2	728.38	36.95	0.949	1.234	1755	35.66	0.020
8/24/2024	3079-82424	1445	23.9	728.31	34.99	0.952	1.224	1769	44.6	0.025
8/25/2024	7576-82524	1428	26.2	728.91	37.14	0.949	1.247	1781	33.38	0.018
8/26/2024	6941-82624	1430	27.7	728.61	37.23	0.949	1.238	1770	582.32	0.328
8/27/2024	10961-82724	1442	28.9	726.96	38.17	0.947	1.244	1794	428.24	0.238
8/28/2024	7365-82824	1427	27.5	726.66	37.98	0.948	1.246	1778	612.08	0.344
8/29/2024	6794-82924	1450	28.1	726.81	43.48	0.940	1.219	1768	43	0.024
8/30/2024	7366-83024	1421	25.8	726.43	37.05	0.949	1.238	1759	149.54	0.085
8/31/2024	3079-83124	1442	22.5	726.36	34.90	0.952	1.220	1759	29.54	0.016
9/1/2024	7576-90124	1427	24	726.51	37.14	0.949	1.243	1774	25.34	0.014
9/2/2024	6941-90224	1432	19.9	729.13	36.95	0.949	1.223	1751	14.42	0.008
9/3/2024	10961-90324	1444	18.8	729.51	37.79	0.948	1.226	1770	10.88	0.006
9/4/2024	7365-90424	1428	20	729.06	37.98	0.948	1.231	1758	12.62	0.007
9/5/2024	6794-90524	1453	24.3	728.76	43.11	0.941	1.213	1762	77	0.043
9/6/2024	7366-90624	1423	21.9	727.26	37.14	0.949	1.231	1752	23.36	0.013
9/7/2024	3079-90724	1444	16	728.68	35.18	0.952	1.209	1746	15.44	0.008
9/8/2024	7576-90824	1431	15.2	728.91	36.58	0.950	1.229	1759	10.76	0.006
9/9/2024	6941-90924	1433	17.6	728.76	36.49	0.950	1.221	1750	8.84	0.005
9/10/2024	10961-91024	1448	20.4	726.73	37.23	0.949	1.231	1782	9.92	0.005
9/11/2024	7365-91124	1427	23.6	725.01	37.70	0.948	1.239	1768	14.24	0.008
9/12/2024	6794-91224	1451	20.3	722.91	42.18	0.942	1.207	1751	30	0.017
9/13/2024	7366-91324	1424	18.9	721.86	36.21	0.950	1.224	1743	8.72	0.005
9/14/2024	3079-91424	1440	21.1	725.01	34.71	0.952	1.220	1757	589.82	0.335
9/15/2024	7576-91524	1427	19.6	726.51	36.39	0.950	1.237	1765	586.82	0.332
9/16/2024	6941-91624	1430	21.3	726.66	36.49	0.950	1.228	1756	14.9	0.008
9/17/2024	10961-91724	1444	23	725.46	36.86	0.949	1.239	1789	14.12	0.007
9/18/2024	7365-91824	1425	23.3	723.96	37.23	0.949	1.240	1767	264.38	0.149
9/19/2024	6794-91924	1451	24.1	723.21	41.89	0.942	1.214	1762	693	0.393
9/20/2024	7366-92024	1423	25.5	721.78	36.21	0.950	1.239	1763	243.38	0.138
9/21/2024	3079-92124	1441	24.1	723.06	34.62	0.952	1.224	1764	175.34	0.099
9/22/2024	7576-92224	1429	23.3	722.91	36.39	0.950	1.245	1779	68.12	0.038
9/23/2024	6941-92324	1430	20	722.08	36.67	0.949	1.223	1749	77.78	0.044
9/24/2024	10961-92424	1441	17.5	721.33	37.23	0.948	1.226	1767	18.32	0.010
9/25/2024	7365-92524	1426	17.6	723.36	37.05	0.949	1.229	1753	24.44	0.013
9/26/2024	6794-92624	1451	18.3	723.06	41.71	0.942	1.203	1746	13	0.007
9/27/2024	7366-92724	VOID	15.5	716.76						
9/28/2024	3079-92824	1442	18.3	719.01	34.53	0.952	1.213	1749	11.42	0.006
9/29/2024	7576-92924	1427	20.1	722.76	36.30	0.950	1.237	1765	6.98	0.003
9/30/2024	6941-93024	1430	20.5	723.88	36.39	0.950	1.221	1746	27.68	0.015

				Bar.	Pressure		Flow	Sample	Total	Lead
Run	Filter	Run	Temp	Pressure	Drop	Pressure	Rate	Volume	Lead	Conc.
Date	Number	Time	deg C	mm Hg	mm Hg	Ratio	m3/min	m3	ug	ug/m3
		t	Tav	Pav	Pf	Po / Pa	Qa	Va	Pb	Pb
10/1/2024	10961-100124	1443	17.6	727.33	37.51	0.948	1.226	1769	15.38	0.008
10/2/2024	7365-100224	1428	14.8	726.28	37.33	0.949	1.221	1744	168.14	0.096
10/3/2024	**6794-100324**	1451	18.9	725.08	42.74	0.941	1.202	1744	124	0.071
10/4/2024	7366-100424	1431	21	728.23	36.58	0.950	1.232	1763	167.6	0.095
10/5/2024	3079-100524	1444	22	727.56	34.81	0.952	1.220	1762	30.98	0.017
10/6/2024	7576-100624	1431	21.1	726.96	36.67	0.950	1.241	1776	331.58	0.186
10/7/2024	6941-100724	1432	14.5	727.56	36.21	0.950	1.213	1737	10.58	0.006
10/8/2024	10961-100824	1443	14.3	726.28	37.33	0.949	1.220	1760	7.58	0.004
10/9/2024	7365-100924	1428	17.4	726.66	38.07	0.948	1.227	1752	59.54	0.033
10/10/2024	**6794-101024**	1450	18.8	728.16	44.04	0.940	1.201	1742	1400	0.803
10/11/2024	7366-101124	1429	19.9	728.61	36.58	0.950	1.228	1755	382.7	0.218
10/12/2024	3079-101224	1443	21.7	725.31	34.62	0.952	1.220	1760	787.22	0.447
10/13/2024	7576-101324	1431	18.7	724.93	36.30	0.950	1.233	1764	71	0.040
10/14/2024	6941-101424	1432	10.3	728.68	35.83	0.951	1.207	1728	28.22	0.016
10/15/2024	10961-101524	1443	8.4	729.81	36.49	0.950	1.210	1746	33.02	0.018
10/16/2024	7365-101624	1429	7.2	734.31	37.05	0.950	1.211	1730	35.18	0.020
10/17/2024	**6794-101724**	1450	10.1	731.84	43.67	0.940	1.186	1720	96	0.055
10/18/2024	7366-101824	1431	11.9	733.26	36.58	0.950	1.213	1736	31.76	0.018
10/19/2024	3079-101924	1443	14.3	735.06	34.90	0.953	1.207	1742	197.6	0.113
10/20/2024	7576-102024	1430	16	733.56	36.21	0.951	1.231	1761	1392.68	0.790
10/21/2024	6941-102124	1432	16.7	730.03	36.30	0.950	1.217	1743	3628.7	2.081
10/22/2024	10961-102224	1444	18.2	725.98	36.67	0.949	1.228	1773	534.86	0.301
10/23/2024	7365-102324	1429	18.3	727.56	36.58	0.950	1.230	1758	63.68	0.036
10/24/2024	**6794-102424**	1451	15.5	726.21	36.02	0.950	1.210	1756	42.68	0.024
10/25/2024	7366-102524	1430	18.3	727.03	37.05	0.949	1.223	1749	172.46	0.098
10/26/2024	3079-102624	1437	11.9	732.89	35.18	0.952	1.201	1726	15.56	0.009
10/27/2024	7576-102724	1430	12.1	730.93	36.77	0.950	1.222	1747	15.68	0.008
10/28/2024	6941-102824	1432	18.7	726.21	36.11	0.950	1.221	1748	143.48	0.082
10/29/2024	10961-102924	1442	21.2	725.31	36.95	0.949	1.235	1781	259.64	0.145
10/30/2024	7365-103024	1426	20.5	726.06	36.77	0.949	1.233	1759	159.68	0.090
10/31/2024	**6794-103124**	1453	14.3	725.08	35.83	0.951	1.208	1755	1294.82	0.737
11/1/2024	7366-110124	1430	10	730.33	36.21	0.950	1.209	1729	30.26	0.017
11/2/2024	3079-110224	1443	12.7	729.73	38.54	0.947	1.195	1724	35.84	0.020
11/3/2024	7576-110324	1430	16	723.43	39.38	0.946	1.224	1750	30.32	0.017
11/4/2024	6941-110424	1429	17.5	720.81	35.65	0.951	1.222	1746	10.16	0.005
11/5/2024	10961-110524	1441	16.6	719.23	36.30	0.950	1.225	1765	25.88	0.014
11/6/2024	7365-110624	1427	11.9	725.38	35.65	0.951	1.220	1741	18.68	0.010
11/7/2024	**6794-110724**	1451	8.5	730.41	34.81	0.952	1.198	1738	15.5	0.008
11/8/2024	7366-110824	1428	10.1	729.81	39.84	0.945	1.202	1716	13.04	0.007
11/9/2024	3079-110924	1441	11.8	725.61	37.79	0.948	1.196	1724	31.88	0.018
11/10/2024	7576-111024	1430	15.6	723.36	39.47	0.945	1.223	1749	20.24	0.011
11/11/2024	6941-111124	1433	12	725.83	36.02	0.950	1.211	1735	32.24	0.018
11/12/2024	10961-111224	1445	9.3	727.78	40.22	0.945	1.207	1745	33.2	0.019
11/13/2024	7365-111324	1427	9.3	723.21	39.84	0.945	1.208	1724	45.2	0.026
11/14/2024	**6794-111424**	1445	9.9	724.18	38.91	0.946	1.194	1725	7.94	0.004
11/15/2024	7366-111524	1427	9.3	727.26	39.29	0.946	1.204	1719	35.84	0.020
11/16/2024	3079-111624	1441	7.6	725.01	39.84	0.945	1.185	1708	9.02	0.005
11/17/2024	7576-111724	1429	14.1	724.03	39.84	0.945	1.219	1742	21.32	0.012
11/18/2024	6941-111824	1431	16.8	718.56	36.30	0.949	1.216	1740	27.44	0.015

				Bar.	Pressure		Flow	Sample	Total	Lead
Run	Filter	Run	Temp	Pressure	Drop	Pressure	Rate	Volume	Lead	Conc.
Date	Number	Time	deg C	mm Hg	mm Hg	Ratio	m3/min	m3	ug	ug/m3
		t	Tav	Pav	Pf	Po / Pa	Qa	Va	Pb	Pb
11/19/2024	10961-111924	1441	14.2	717.88	39.47	0.945	1.207	1740	204.44	0.117
11/20/2024	7365-112024	1427	7.6	724.18	39.38	0.946	1.206	1721	17.24	0.010
11/21/2024	**6794-112124**	1454	3.7	724.33	39.47	0.946	1.182	1719	27.74	0.016
11/22/2024	7366-112224	1429	1.8	726.88	39.84	0.945	1.191	1702	22.46	0.013
11/23/2024	3079-112324	1442	4.4	725.83	39.47	0.946	1.178	1698	574.34	0.338
11/24/2024	7576-112424	1430	11.4	720.96	39.94	0.945	1.215	1737	94.22	0.054
11/25/2024	6941-112524	1433	10	723.88	36.77	0.949	1.204	1726	289.1	0.167
11/26/2024	10961-112624	1443	2.6	728.61	39.19	0.946	1.193	1721	65.24	0.037
11/27/2024	7365-112724	1428	5.2	720.13	38.26	0.947	1.203	1718	40.58	0.023
11/28/2024	**6794-112824**	1450	0.8	726.21	37.61	0.948	1.177	1706	18.5	0.010
11/29/2024	7366-112924	1428	-2.1	730.94	38.26	0.948	1.183	1689	18.2	0.010
11/30/2024	3079-113024	1445	1	728.98	37.61	0.948	1.177	1701	166.4	0.097
12/1/2024	7576-120124	1431	-1.3	730.78	38.54	0.947	1.190	1703	19.16	0.011
12/2/2024	6941-120224	1431	-3.4	733.49	36.30	0.951	1.180	1689	199.94	0.118
12/3/2024	10961-120324	1445	-3.1	734.84	39.75	0.946	1.181	1706	66.02	0.038
12/4/2024	7365-120424	1427	6.6	724.86	38.73	0.947	1.203	1717	393.5	0.229
12/5/2024	**6794-120524**	1450	-4.9	732.29	37.14	0.949	1.172	1700	48.98	0.028
12/6/2024	7366-120624	1429	-3.9	733.19	37.98	0.948	1.179	1685	123.2	0.073
12/7/2024	3079-120724	1441	6.4	728.31	37.98	0.948	1.185	1707	204.08	0.119
12/8/2024	7576-120824	1429	9	722.08	36.86	0.949	1.217	1739	54.68	0.031
12/9/2024	6941-120924	1432	8.3	720.66	36.58	0.949	1.201	1719	72.8	0.042
12/10/2024	10961-121024	1445	3	723.73	39.10	0.946	1.197	1729	29.3	0.016
12/11/2024	7365-121124	1431	-0.9	726.81	38.45	0.947	1.191	1704	19.88	0.011
12/12/2024	**6794-121224**	1452	1.8	730.41	38.07	0.948	1.181	1715	70.94	0.041
12/13/2024	7366-121324	1430	1.7	733.33	38.26	0.948	1.191	1703	11.6	0.006
12/14/2024	3079-121424	1440	5.9	729.21	37.89	0.948	1.185	1706	9.8	0.005
12/15/2024	7576-121524	1428	8	727.78	38.35	0.947	1.21	1728	12.38	0.007
12/16/2024	6941-121624	1432	12.5	725.98	37.42	0.948	1.207	1728	11.9	0.006
12/17/2024	10961-121724	1445	8.4	729.36	37.98	0.948	1.207	1744	25.34	0.014
12/18/2024	7365-121824	1433	5.5	730.26	39.66	0.946	1.202	1722	15.32	0.008
12/19/2024	**6794-121924**	1451	2.5	729.13	38.63	0.947	1.18	1712	226.16	0.132
12/20/2024	7366-122024	1429	-2.2	730.71	38.35	0.948	1.183	1690	16.52	0.009
12/21/2024	3079-122124	1439	-1.9	733.48	38.91	0.947	1.168	1681	19.94	0.011
12/22/2024	7576-122224	1429	0.3	731.16	38.35	0.948	1.196	1709	14.24	0.008
12/23/2024	6941-122324	1433	5.2	728.53	37.61	0.948	1.195	1712	7.82	0.004
12/24/2024	10961-122424	1442	5.6	729.13	39.29	0.946	1.2	1731	7.22	0.004
12/25/2024	7365-122524	1430	5.7	726.73	38.73	0.947	1.203	1721	5.3	0.003
12/26/2024	**6794-122624**	1451	7.5	725.61	38.26	0.947	1.191	1728	11.72	0.006
12/27/2024	7366-122724	1428	9.6	719.08	38.63	0.946	1.204	1719	512.96	0.298
12/28/2024	3079-122824	1422	10.5	721.86	38.07	0.947	1.191	1694	64.04	0.037
12/29/2024	7576-122924	1	9.4	718.26	39.01	0.946	1.212	1	no power	VOID
12/30/2024	6941-123024	1436	7.3	716.31	37.79	0.947	1.198	1720	90.32	0.052
12/31/2024	10961-123124	1442	3.9	719.38	38.63	0.946	1.197	1727	6.14	0.003

Attachment 4
Doe Run Samples Eligible to Collocate W\MoDNR Primary Samples

January 2025

Doe Run Samples Eligible to Collocate w/MoDNR Primary Samples

State Code	County Code	Site Number	Date (Local)	Units of Measure	Arithmetic Mean	Data Source	Day of Week	SamplerID
29	093	9008	1/1/2024	Micrograms/cubic meter (LC)	0.02	AQS Data Mart	Monday	6941
29	093	9008	1/2/2024	Micrograms/cubic meter (LC)	0.276	AQS Data Mart	Tuesday	10961
29	093	9008	1/3/2024	Micrograms/cubic meter (LC)	0.014	AQS Data Mart	Wednesday	7365
29	093	9008	1/4/2024	Micrograms/cubic meter (LC)	0.014	AQS Data Mart	Thursday	6794
29	093	9008	1/7/2024	Micrograms/cubic meter (LC)	0.013	AQS Data Mart	Sunday	7576
29	093	9008	1/8/2024	Micrograms/cubic meter (LC)	0.022	AQS Data Mart	Monday	6941
29	093	9008	1/9/2024	Micrograms/cubic meter (LC)	0.039	AQS Data Mart	Tuesday	10961
29	093	9008	1/10/2024	Micrograms/cubic meter (LC)	0.023	AQS Data Mart	Wednesday	7365
29	093	9008	1/11/2024	Micrograms/cubic meter (LC)	0.021	AQS Data Mart	Thursday	6794
29	093	9008	1/14/2024	Micrograms/cubic meter (LC)	0.007	AQS Data Mart	Sunday	7576
29	093	9008	1/15/2024	Micrograms/cubic meter (LC)	0.006	AQS Data Mart	Monday	6941
29	093	9008	1/16/2024	Micrograms/cubic meter (LC)	0.01	AQS Data Mart	Tuesday	10961
Void			1/17/2024				Wednesday	7365
29	093	9008	1/18/2024	Micrograms/cubic meter (LC)	0.062	AQS Data Mart	Thursday	6794
29	093	9008	1/21/2024	Micrograms/cubic meter (LC)	0.071	AQS Data Mart	Sunday	7576
29	093	9008	1/22/2024	Micrograms/cubic meter (LC)	0.028	AQS Data Mart	Monday	6941
29	093	9008	1/23/2024	Micrograms/cubic meter (LC)	0.013	AQS Data Mart	Tuesday	10961
29	093	9008	1/24/2024	Micrograms/cubic meter (LC)	0.095	AQS Data Mart	Wednesday	7365
29	093	9008	1/25/2024	Micrograms/cubic meter (LC)	0.011	AQS Data Mart	Thursday	6794
29	093	9008	1/28/2024	Micrograms/cubic meter (LC)	0.021	AQS Data Mart	Sunday	7576
29	093	9008	1/29/2024	Micrograms/cubic meter (LC)	0.089	AQS Data Mart	Monday	6941
29	093	9008	1/30/2024	Micrograms/cubic meter (LC)	0.048	AQS Data Mart	Tuesday	10961
29	093	9008	1/31/2024	Micrograms/cubic meter (LC)	0.166	AQS Data Mart	Wednesday	7365

Appendix 2

February 2025

Doe Run Samples Eligible to Collocate w/MoDNR Primary Samples

State Code	County Code	Site Number	Date (Local)	Units of Measure	Arithmetic Mean	Data Source	Day of Week	SamplerID
29	093	9008	2/1/2024	Micrograms/cubic meter (LC)	0.29	AQS Data Mart	Thursday	6794
29	093	9008	2/4/2024	Micrograms/cubic meter (LC)	0.016	AQS Data Mart	Sunday	7576
29	093	9008	2/5/2024	Micrograms/cubic meter (LC)	0.013	AQS Data Mart	Monday	6941
29	093	9008	2/6/2024	Micrograms/cubic meter (LC)	0.009	AQS Data Mart	Tuesday	10961
29	093	9008	2/7/2024	Micrograms/cubic meter (LC)	0.014	AQS Data Mart	Wednesday	7365
29	093	9008	2/8/2024	Micrograms/cubic meter (LC)	0.088	AQS Data Mart	Thursday	6794
29	093	9008	2/11/2024	Micrograms/cubic meter (LC)	0.012	AQS Data Mart	Sunday	7576
29	093	9008	2/12/2024	Micrograms/cubic meter (LC)	0.013	AQS Data Mart	Monday	6941
29	093	9008	2/13/2024	Micrograms/cubic meter (LC)	0.394	AQS Data Mart	Tuesday	10961
29	093	9008	2/14/2024	Micrograms/cubic meter (LC)	0.03	AQS Data Mart	Wednesday	7365
29	093	9008	2/15/2024	Micrograms/cubic meter (LC)	0.099	AQS Data Mart	Thursday	6794
29	093	9008	2/18/2024	Micrograms/cubic meter (LC)	0.01	AQS Data Mart	Sunday	7576
29	093	9008	2/19/2024	Micrograms/cubic meter (LC)	0.183	AQS Data Mart	Monday	6941
29	093	9008	2/20/2024	Micrograms/cubic meter (LC)	0.181	AQS Data Mart	Tuesday	10961
29	093	9008	2/21/2024	Micrograms/cubic meter (LC)	0.012	AQS Data Mart	Wednesday	7365
29	093	9008	2/22/2024	Micrograms/cubic meter (LC)	0.045	AQS Data Mart	Thursday	6794
29	093	9008	2/25/2024	Micrograms/cubic meter (LC)	0.067	AQS Data Mart	Sunday	7576
29	093	9008	2/26/2024	Micrograms/cubic meter (LC)	0.071	AQS Data Mart	Monday	6941
29	093	9008	2/27/2024	Micrograms/cubic meter (LC)	0.074	AQS Data Mart	Tuesday	10961
29	093	9008	2/28/2024	Micrograms/cubic meter (LC)	0.011	AQS Data Mart	Wednesday	7365
29	093	9008	2/29/2024	Micrograms/cubic meter (LC)	0.013	AQS Data Mart	Thursday	6794

Appendix 2

March 2025

Doe Run Samples Eligible to Collocate w/MoDNR Primary Samples

State Code	County Code	Site Number	Date (Local)	Units of Measure	Arithmetic Mean	Data Source	Day of Week	SamplerID
29	093	9008	3/3/2024	Micrograms/cubic meter (LC)	0.026	AQS Data Mart	Sunday	7576
29	093	9008	3/4/2024	Micrograms/cubic meter (LC)	0.04	AQS Data Mart	Monday	6941
29	093	9008	3/5/2024	Micrograms/cubic meter (LC)	0.058	AQS Data Mart	Tuesday	10961
29	093	9008	3/6/2024	Micrograms/cubic meter (LC)	0.007	AQS Data Mart	Wednesday	7365
29	093	9008	3/7/2024	Micrograms/cubic meter (LC)	0.015	AQS Data Mart	Thursday	6794
29	093	9008	3/10/2024	Micrograms/cubic meter (LC)	0.02	AQS Data Mart	Sunday	7576
29	093	9008	3/11/2024	Micrograms/cubic meter (LC)	0.17	AQS Data Mart	Monday	6941
29	093	9008	3/12/2024	Micrograms/cubic meter (LC)	0.341	AQS Data Mart	Tuesday	10961
29	093	9008	3/13/2024	Micrograms/cubic meter (LC)	0.082	AQS Data Mart	Wednesday	7365
29	093	9008	3/14/2024	Micrograms/cubic meter (LC)	0.133	AQS Data Mart	Thursday	6794
29	093	9008	3/17/2024	Micrograms/cubic meter (LC)	0.02	AQS Data Mart	Sunday	7576
29	093	9008	3/18/2024	Micrograms/cubic meter (LC)	0.378	AQS Data Mart	Monday	6941
29	093	9008	3/19/2024	Micrograms/cubic meter (LC)	0.02	AQS Data Mart	Tuesday	10961
29	093	9008	3/20/2024	Micrograms/cubic meter (LC)	0.013	AQS Data Mart	Wednesday	7365
29	093	9008	3/21/2024	Micrograms/cubic meter (LC)	0.008	AQS Data Mart	Thursday	6794
29	093	9008	3/24/2024	Micrograms/cubic meter (LC)	0.017	AQS Data Mart	Sunday	7576
29	093	9008	3/25/2024	Micrograms/cubic meter (LC)	0.014	AQS Data Mart	Monday	6941
29	093	9008	3/26/2024	Micrograms/cubic meter (LC)	0.006	AQS Data Mart	Tuesday	10961
29	093	9008	3/27/2024	Micrograms/cubic meter (LC)	0.016	AQS Data Mart	Wednesday	7365
29	093	9008	3/28/2024	Micrograms/cubic meter (LC)	0.053	AQS Data Mart	Thursday	6794
			3/31/2024				Sunday	7576

Appendix 2

April 2025

Doe Run Samples Eligible to Collocate w/MoDNR Primary Samples

State Code	County Code	Site Number	Date (Local)	Units of Measure	Arithmetic Mean	Data Source	Day of Week	SamplerID
29	093	9008	4/1/2024	Micrograms/cubic meter (LC)	0.139	AQS Data Mart	Monday	6941
29	093	9008	4/2/2024	Micrograms/cubic meter (LC)	0.024	AQS Data Mart	Tuesday	10961
29	093	9008	4/3/2024	Micrograms/cubic meter (LC)	0.015	AQS Data Mart	Wednesday	7365
29	093	9008	4/4/2024	Micrograms/cubic meter (LC)	0.012	AQS Data Mart	Thursday	6794
29	093	9008	4/7/2024	Micrograms/cubic meter (LC)	0.098	AQS Data Mart	Sunday	7576
29	093	9008	4/8/2024	Micrograms/cubic meter (LC)	0.324	AQS Data Mart	Monday	6941
29	093	9008	4/9/2024	Micrograms/cubic meter (LC)	0.027	AQS Data Mart	Tuesday	10961
29	093	9008	4/10/2024	Micrograms/cubic meter (LC)	0.009	AQS Data Mart	Wednesday	7365
29	093	9008	4/11/2024	Micrograms/cubic meter (LC)	0.016	AQS Data Mart	Thursday	6794
29	093	9008	4/14/2024	Micrograms/cubic meter (LC)	0.222	AQS Data Mart	Sunday	7576
29	093	9008	4/15/2024	Micrograms/cubic meter (LC)	0.079	AQS Data Mart	Monday	6941
29	093	9008	4/16/2024	Micrograms/cubic meter (LC)	0.072	AQS Data Mart	Tuesday	10961
29	093	9008	4/17/2024	Micrograms/cubic meter (LC)	0.306	AQS Data Mart	Wednesday	7365
29	093	9008	4/18/2024	Micrograms/cubic meter (LC)	0.027	AQS Data Mart	Thursday	6794
29	093	9008	4/21/2024	Micrograms/cubic meter (LC)	0.016	AQS Data Mart	Sunday	7576
29	093	9008	4/22/2024	Micrograms/cubic meter (LC)	0.075	AQS Data Mart	Monday	6941
29	093	9008	4/23/2024	Micrograms/cubic meter (LC)	0.124	AQS Data Mart	Tuesday	10961
29	093	9008	4/24/2024	Micrograms/cubic meter (LC)	0.016	AQS Data Mart	Wednesday	7365
29	093	9008	4/25/2024	Micrograms/cubic meter (LC)	0.006	AQS Data Mart	Thursday	6794
29	093	9008	4/28/2024	Micrograms/cubic meter (LC)	0.02	AQS Data Mart	Sunday	7576
29	093	9008	4/29/2024	Micrograms/cubic meter (LC)	0.059	AQS Data Mart	Monday	6941
29	093	9008	4/30/2024	Micrograms/cubic meter (LC)	0.123	AQS Data Mart	Tuesday	10961

Appendix 2

May 2025

Doe Run Samples Eligible to Collocate w/MoDNR Primary Samples

State Code	County Code	Site Number	Date (Local)	Units of Measure	Arithmetic Mean	Data Source	Day of Week	SamplerID
29	093	9008	5/1/2024	Micrograms/cubic meter (LC)	0.126	AQS Data Mart	Wednesday	7365
29	093	9008	5/2/2024	Micrograms/cubic meter (LC)	0.022	AQS Data Mart	Thursday	6794
29	093	9008	5/5/2024	Micrograms/cubic meter (LC)	0.022	AQS Data Mart	Sunday	7576
29	093	9008	5/6/2024	Micrograms/cubic meter (LC)	0.053	AQS Data Mart	Monday	6941
29	093	9008	5/7/2024	Micrograms/cubic meter (LC)	0.139	AQS Data Mart	Tuesday	10961
29	093	9008	5/8/2024	Micrograms/cubic meter (LC)	0.146	AQS Data Mart	Wednesday	7365
29	093	9008	5/9/2024	Micrograms/cubic meter (LC)	0.007	AQS Data Mart	Thursday	6794
29	093	9008	5/12/2024	Micrograms/cubic meter (LC)	0.049	AQS Data Mart	Sunday	7576
29	093	9008	5/13/2024	Micrograms/cubic meter (LC)	0.007	AQS Data Mart	Monday	6941
29	093	9008	5/14/2024	Micrograms/cubic meter (LC)	0.008	AQS Data Mart	Tuesday	10961
29	093	9008	5/15/2024	Micrograms/cubic meter (LC)	0.008	AQS Data Mart	Wednesday	7365
29	093	9008	5/16/2024	Micrograms/cubic meter (LC)	0.096	AQS Data Mart	Thursday	6794
29	093	9008	5/19/2024	Micrograms/cubic meter (LC)	0.04	AQS Data Mart	Sunday	7576
29	093	9008	5/20/2024	Micrograms/cubic meter (LC)	0.076	AQS Data Mart	Monday	6941
29	093	9008	5/21/2024	Micrograms/cubic meter (LC)	0.201	AQS Data Mart	Tuesday	10961
29	093	9008	5/22/2024	Micrograms/cubic meter (LC)	0.017	AQS Data Mart	Wednesday	7365
29	093	9008	5/23/2024	Micrograms/cubic meter (LC)	0.093	AQS Data Mart	Thursday	6794
29	093	9008	5/26/2024	Micrograms/cubic meter (LC)	0.045	AQS Data Mart	Sunday	7576
29	093	9008	5/27/2024	Micrograms/cubic meter (LC)	0.009	AQS Data Mart	Monday	6941
29	093	9008	5/28/2024	Micrograms/cubic meter (LC)	0.012	AQS Data Mart	Tuesday	10961
29	093	9008	5/29/2024	Micrograms/cubic meter (LC)	0.007	AQS Data Mart	Wednesday	7365
29	093	9008	5/30/2024	Micrograms/cubic meter (LC)	0.005	AQS Data Mart	Thursday	6794

Appendix 2

June 2025

Doe Run Samples Eligible to Collocate w/MoDNR Primary Samples

State Code	County Code	Site Number	Date (Local)	Units of Measure	Arithmetic Mean	Data Source	Day of Week	SamplerID
29	093	9008	6/2/2024	Micrograms/cubic meter (LC)	0.019	AQS Data Mart	Sunday	7576
29	093	9008	6/3/2024	Micrograms/cubic meter (LC)	0.017	AQS Data Mart	Monday	6941
29	093	9008	6/4/2024	Micrograms/cubic meter (LC)	0.008	AQS Data Mart	Tuesday	10961
29	093	9008	6/5/2024	Micrograms/cubic meter (LC)	0.009	AQS Data Mart	Wednesday	7365
29	093	9008	6/6/2024	Micrograms/cubic meter (LC)	0.011	AQS Data Mart	Thursday	6794
29	093	9008	6/9/2024	Micrograms/cubic meter (LC)	0.054	AQS Data Mart	Sunday	7576
29	093	9008	6/10/2024	Micrograms/cubic meter (LC)	0.018	AQS Data Mart	Monday	6941
29	093	9008	6/11/2024	Micrograms/cubic meter (LC)	0.019	AQS Data Mart	Tuesday	10961
29	093	9008	6/12/2024	Micrograms/cubic meter (LC)	0.24	AQS Data Mart	Wednesday	7365
29	093	9008	6/13/2024	Micrograms/cubic meter (LC)	0.138	AQS Data Mart	Thursday	6794
29	093	9008	6/16/2024	Micrograms/cubic meter (LC)	0.059	AQS Data Mart	Sunday	7576
29	093	9008	6/17/2024	Micrograms/cubic meter (LC)	0.009	AQS Data Mart	Monday	6941
29	093	9008	6/18/2024	Micrograms/cubic meter (LC)	0.027	AQS Data Mart	Tuesday	10961
29	093	9008	6/19/2024	Micrograms/cubic meter (LC)	0.006	AQS Data Mart	Wednesday	7365
29	093	9008	6/20/2024	Micrograms/cubic meter (LC)	0.022	AQS Data Mart	Thursday	6794
29	093	9008	6/23/2024	Micrograms/cubic meter (LC)	0.09	AQS Data Mart	Sunday	7576
29	093	9008	6/24/2024	Micrograms/cubic meter (LC)	0.046	AQS Data Mart	Monday	6941
29	093	9008	6/25/2024	Micrograms/cubic meter (LC)	0.122	AQS Data Mart	Tuesday	10961
29	093	9008	6/26/2024	Micrograms/cubic meter (LC)	0.015	AQS Data Mart	Wednesday	7365
29	093	9008	6/27/2024	Micrograms/cubic meter (LC)	0.006	AQS Data Mart	Thursday	6794
29	093	9008	6/30/2024	Micrograms/cubic meter (LC)	0.01	AQS Data Mart	Sunday	7576

Appendix 2

July 2025

Doe Run Samples Eligible to Collocate w/MoDNR Primary Samples

State Code	County Code	Site Number	Date (Local)	Units of Measure	Arithmetic Mean	Data Source	Day of Week	SamplerID
29	093	9008	7/1/2024	Micrograms/cubic meter (LC)	0.007	AQS Data Mart	Monday	6941
29	093	9008	7/2/2024	Micrograms/cubic meter (LC)	0.008	AQS Data Mart	Tuesday	10961
29	093	9008	7/3/2024	Micrograms/cubic meter (LC)	0.035	AQS Data Mart	Wednesday	7365
29	093	9008	7/4/2024	Micrograms/cubic meter (LC)	0.019	AQS Data Mart	Thursday	6794
29	093	9008	7/7/2024	Micrograms/cubic meter (LC)	0.008	AQS Data Mart	Sunday	7576
29	093	9008	7/8/2024	Micrograms/cubic meter (LC)	0.037	AQS Data Mart	Monday	6941
29	093	9008	7/9/2024	Micrograms/cubic meter (LC)	0.007	AQS Data Mart	Tuesday	10961
29	093	9008	7/10/2024	Micrograms/cubic meter (LC)	0.004	AQS Data Mart	Wednesday	7365
29	093	9008	7/11/2024	Micrograms/cubic meter (LC)	0.562	AQS Data Mart	Thursday	6794
29	093	9008	7/14/2024	Micrograms/cubic meter (LC)	0.383	AQS Data Mart	Sunday	7576
29	093	9008	7/15/2024	Micrograms/cubic meter (LC)	0.386	AQS Data Mart	Monday	6941
29	093	9008	7/16/2024	Micrograms/cubic meter (LC)	0.957	AQS Data Mart	Tuesday	10961
29	093	9008	7/17/2024	Micrograms/cubic meter (LC)	0.132	AQS Data Mart	Wednesday	7365
29	093	9008	7/18/2024	Micrograms/cubic meter (LC)	0	AQS Data Mart	Thursday	6794
29	093	9008	7/21/2024	Micrograms/cubic meter (LC)	0.01	AQS Data Mart	Sunday	7576
29	093	9008	7/22/2024	Micrograms/cubic meter (LC)	0.02	AQS Data Mart	Monday	6941
29	093	9008	7/23/2024	Micrograms/cubic meter (LC)	0.159	AQS Data Mart	Tuesday	10961
29	093	9008	7/24/2024	Micrograms/cubic meter (LC)	0.153	AQS Data Mart	Wednesday	7365
29	093	9008	7/25/2024	Micrograms/cubic meter (LC)	0.094	AQS Data Mart	Thursday	6794
29	093	9008	7/28/2024	Micrograms/cubic meter (LC)	0.207	AQS Data Mart	Sunday	7576
29	093	9008	7/29/2024	Micrograms/cubic meter (LC)	0.401	AQS Data Mart	Monday	6941
29	093	9008	7/30/2024	Micrograms/cubic meter (LC)	0.045	AQS Data Mart	Tuesday	10961
29	093	9008	7/31/2024	Micrograms/cubic meter (LC)	0.133	AQS Data Mart	Wednesday	7365

Appendix 2

August 2025

Doe Run Samples Eligible to Collocate w/MoDNR Primary Samples

State Code	County Code	Site Number	Date (Local)	Units of Measure	Arithmetic Mean	Data Source	Day of Week	SamplerID
29	093	9008	8/1/2024	Micrograms/cubic meter (LC)	0.083	AQS Data Mart	Thursday	6794
29	093	9008	8/4/2024	Micrograms/cubic meter (LC)	0.171	AQS Data Mart	Sunday	7576
29	093	9008	8/5/2024	Micrograms/cubic meter (LC)	0.8	AQS Data Mart	Monday	6941
29	093	9008	8/6/2024	Micrograms/cubic meter (LC)	0.286	AQS Data Mart	Tuesday	10961
29	093	9008	8/7/2024	Micrograms/cubic meter (LC)	0.015	AQS Data Mart	Wednesday	7365
29	093	9008	8/8/2024	Micrograms/cubic meter (LC)	0.011	AQS Data Mart	Thursday	6794
29	093	9008	8/11/2024	Micrograms/cubic meter (LC)	0.012	AQS Data Mart	Sunday	7576
29	093	9008	8/12/2024	Micrograms/cubic meter (LC)	0.013	AQS Data Mart	Monday	6941
29	093	9008	8/13/2024	Micrograms/cubic meter (LC)	0.017	AQS Data Mart	Tuesday	10961
29	093	9008	8/14/2024	Micrograms/cubic meter (LC)	0.006	AQS Data Mart	Wednesday	7365
29	093	9008	8/15/2024	Micrograms/cubic meter (LC)	0.09	AQS Data Mart	Thursday	6794
29	093	9008	8/18/2024	Micrograms/cubic meter (LC)	0.041	AQS Data Mart	Sunday	7576
29	093	9008	8/19/2024	Micrograms/cubic meter (LC)	0.016	AQS Data Mart	Monday	6941
29	093	9008	8/20/2024	Micrograms/cubic meter (LC)	0.01	AQS Data Mart	Tuesday	10961
29	093	9008	8/21/2024	Micrograms/cubic meter (LC)	0.011	AQS Data Mart	Wednesday	7365
29	093	9008	8/22/2024	Micrograms/cubic meter (LC)	0.005	AQS Data Mart	Thursday	6794
29	093	9008	8/25/2024	Micrograms/cubic meter (LC)	0.018	AQS Data Mart	Sunday	7576
29	093	9008	8/26/2024	Micrograms/cubic meter (LC)	0.328	AQS Data Mart	Monday	6941
29	093	9008	8/27/2024	Micrograms/cubic meter (LC)	0.238	AQS Data Mart	Tuesday	10961
29	093	9008	8/28/2024	Micrograms/cubic meter (LC)	0.344	AQS Data Mart	Wednesday	7365
29	093	9008	8/29/2024	Micrograms/cubic meter (LC)	0.024	AQS Data Mart	Thursday	6794

Appendix 2

September 2025

Doe Run Samples Eligible to Collocate w/MoDNR Primary Samples

State Code	County Code	Site Number	Date (Local)	Units of Measure	Arithmetic Mean	Data Source	Day of Week	SamplerID
29	093	9008	9/1/2024	Micrograms/cubic meter (LC)	0.014	AQS Data Mart	Sunday	7576
29	093	9008	9/2/2024	Micrograms/cubic meter (LC)	0.008	AQS Data Mart	Monday	6941
29	093	9008	9/3/2024	Micrograms/cubic meter (LC)	0.006	AQS Data Mart	Tuesday	10961
29	093	9008	9/4/2024	Micrograms/cubic meter (LC)	0.007	AQS Data Mart	Wednesday	7365
29	093	9008	9/5/2024	Micrograms/cubic meter (LC)	0.043	AQS Data Mart	Thursday	6794
29	093	9008	9/8/2024	Micrograms/cubic meter (LC)	0.006	AQS Data Mart	Sunday	7576
29	093	9008	9/9/2024	Micrograms/cubic meter (LC)	0.005	AQS Data Mart	Monday	6941
29	093	9008	9/10/2024	Micrograms/cubic meter (LC)	0.005	AQS Data Mart	Tuesday	10961
29	093	9008	9/11/2024	Micrograms/cubic meter (LC)	0.008	AQS Data Mart	Wednesday	7365
29	093	9008	9/12/2024	Micrograms/cubic meter (LC)	0.017	AQS Data Mart	Thursday	6794
29	093	9008	9/15/2024	Micrograms/cubic meter (LC)	0.332	AQS Data Mart	Sunday	7576
29	093	9008	9/16/2024	Micrograms/cubic meter (LC)	0.008	AQS Data Mart	Monday	6941
29	093	9008	9/17/2024	Micrograms/cubic meter (LC)	0.007	AQS Data Mart	Tuesday	10961
29	093	9008	9/18/2024	Micrograms/cubic meter (LC)	0.149	AQS Data Mart	Wednesday	7365
29	093	9008	9/19/2024	Micrograms/cubic meter (LC)	0.393	AQS Data Mart	Thursday	6794
29	093	9008	9/22/2024	Micrograms/cubic meter (LC)	0.038	AQS Data Mart	Sunday	7576
29	093	9008	9/23/2024	Micrograms/cubic meter (LC)	0.044	AQS Data Mart	Monday	6941
29	093	9008	9/24/2024	Micrograms/cubic meter (LC)	0.01	AQS Data Mart	Tuesday	10961
29	093	9008	9/25/2024	Micrograms/cubic meter (LC)	0.013	AQS Data Mart	Wednesday	7365
29	093	9008	9/26/2024	Micrograms/cubic meter (LC)	0.007	AQS Data Mart	Thursday	6794
29	093	9008	9/29/2024	Micrograms/cubic meter (LC)	0.003	AQS Data Mart	Sunday	7576
29	093	9008	9/30/2024	Micrograms/cubic meter (LC)	0.015	AQS Data Mart	Monday	6941

Appendix 2

October 2025

Doe Run Samples Eligible to Collocate w/MoDNR Primary Samples

State Code	County Code	Site Number	Date (Local)	Units of Measure	Arithmetic Mean	Data Source	Day of Week	SamplerID
29	093	9008	10/1/2024	Micrograms/cubic meter (LC)	0.008	AQS Data Mart	Tuesday	10961
29	093	9008	10/2/2024	Micrograms/cubic meter (LC)	0.096	AQS Data Mart	Wednesday	7365
29	093	9008	10/3/2024	Micrograms/cubic meter (LC)	0.071	AQS Data Mart	Thursday	6794
29	093	9008	10/6/2024	Micrograms/cubic meter (LC)	0.186	AQS Data Mart	Sunday	7576
29	093	9008	10/7/2024	Micrograms/cubic meter (LC)	0.006	AQS Data Mart	Monday	6941
29	093	9008	10/8/2024	Micrograms/cubic meter (LC)	0.004	AQS Data Mart	Tuesday	10961
29	093	9008	10/9/2024	Micrograms/cubic meter (LC)	0.033	AQS Data Mart	Wednesday	7365
29	093	9008	10/10/2024	Micrograms/cubic meter (LC)	0.803	AQS Data Mart	Thursday	6794
29	093	9008	10/13/2024	Micrograms/cubic meter (LC)	0.04	AQS Data Mart	Sunday	7576
29	093	9008	10/14/2024	Micrograms/cubic meter (LC)	0.016	AQS Data Mart	Monday	6941
29	093	9008	10/15/2024	Micrograms/cubic meter (LC)	0.018	AQS Data Mart	Tuesday	10961
29	093	9008	10/16/2024	Micrograms/cubic meter (LC)	0.02	AQS Data Mart	Wednesday	7365
29	093	9008	10/17/2024	Micrograms/cubic meter (LC)	0.055	AQS Data Mart	Thursday	6794
29	093	9008	10/20/2024	Micrograms/cubic meter (LC)	0.791	AQS Data Mart	Sunday	7576
29	093	9008	10/21/2024	Micrograms/cubic meter (LC)	2.082	AQS Data Mart	Monday	6941
29	093	9008	10/22/2024	Micrograms/cubic meter (LC)	0.301	AQS Data Mart	Tuesday	10961
29	093	9008	10/23/2024	Micrograms/cubic meter (LC)	0.036	AQS Data Mart	Wednesday	7365
29	093	9008	10/24/2024	Micrograms/cubic meter (LC)	0.024	AQS Data Mart	Thursday	6794
29	093	9008	10/27/2024	Micrograms/cubic meter (LC)	0.008	AQS Data Mart	Sunday	7576
29	093	9008	10/28/2024	Micrograms/cubic meter (LC)	0.082	AQS Data Mart	Monday	6941
29	093	9008	10/29/2024	Micrograms/cubic meter (LC)	0.145	AQS Data Mart	Tuesday	10961
29	093	9008	10/30/2024	Micrograms/cubic meter (LC)	0.09	AQS Data Mart	Wednesday	7365
29	093	9008	10/31/2024	Micrograms/cubic meter (LC)	0.737	AQS Data Mart	Thursday	6794

Appendix 2

November 2025

Doe Run Samples Eligible to Collocate w/MoDNR Primary Samples

State Code	County Code	Site Number	Date (Local)	Units of Measure	Arithmetic Mean	Data Source	Day of Week	SamplerID
29	093	9008	11/3/2024	Micrograms/cubic meter (LC)	0.017	AQS Data Mart	Sunday	7576
29	093	9008	11/4/2024	Micrograms/cubic meter (LC)	0.005	AQS Data Mart	Monday	6941
29	093	9008	11/5/2024	Micrograms/cubic meter (LC)	0.014	AQS Data Mart	Tuesday	10961
29	093	9008	11/6/2024	Micrograms/cubic meter (LC)	0.01	AQS Data Mart	Wednesday	7365
29	093	9008	11/7/2024	Micrograms/cubic meter (LC)	0.008	AQS Data Mart	Thursday	6794
29	093	9008	11/10/2024	Micrograms/cubic meter (LC)	0.011	AQS Data Mart	Sunday	7576
29	093	9008	11/11/2024	Micrograms/cubic meter (LC)	0.018	AQS Data Mart	Monday	6941
29	093	9008	11/12/2024	Micrograms/cubic meter (LC)	0.019	AQS Data Mart	Tuesday	10961
29	093	9008	11/13/2024	Micrograms/cubic meter (LC)	0.026	AQS Data Mart	Wednesday	7365
29	093	9008	11/14/2024	Micrograms/cubic meter (LC)	0.004	AQS Data Mart	Thursday	6794
29	093	9008	11/17/2024	Micrograms/cubic meter (LC)	0.012	AQS Data Mart	Sunday	7576
29	093	9008	11/18/2024	Micrograms/cubic meter (LC)	0.015	AQS Data Mart	Monday	6941
29	093	9008	11/19/2024	Micrograms/cubic meter (LC)	0.117	AQS Data Mart	Tuesday	10961
29	093	9008	11/20/2024	Micrograms/cubic meter (LC)	0.01	AQS Data Mart	Wednesday	7365
29	093	9008	11/21/2024	Micrograms/cubic meter (LC)	0.016	AQS Data Mart	Thursday	6794
29	093	9008	11/24/2024	Micrograms/cubic meter (LC)	0.054	AQS Data Mart	Sunday	7576
29	093	9008	11/25/2024	Micrograms/cubic meter (LC)	0.167	AQS Data Mart	Monday	6941
29	093	9008	11/26/2024	Micrograms/cubic meter (LC)	0.037	AQS Data Mart	Tuesday	10961
29	093	9008	11/27/2024	Micrograms/cubic meter (LC)	0.023	AQS Data Mart	Wednesday	7365
29	093	9008	11/28/2024	Micrograms/cubic meter (LC)	0.01	AQS Data Mart	Thursday	6794

Appendix 2

December 2025

Doe Run Samples Eligible to Collocate w/MoDNR Primary Samples

State Code	County Code	Site Number	Date (Local)	Units of Measure	Arithmetic Mean	Data Source	Day of Week	SamplerID
29	093	9008	12/1/2024	Micrograms/cubic meter (LC)	0.011	AQS Data Mart	Sunday	7576
29	093	9008	12/2/2024	Micrograms/cubic meter (LC)	0.118	AQS Data Mart	Monday	6941
29	093	9008	12/3/2024	Micrograms/cubic meter (LC)	0.038	AQS Data Mart	Tuesday	10961
29	093	9008	12/4/2024	Micrograms/cubic meter (LC)	0.229	AQS Data Mart	Wednesday	7365
29	093	9008	12/5/2024	Micrograms/cubic meter (LC)	0.028	AQS Data Mart	Thursday	6794
29	093	9008	12/8/2024	Micrograms/cubic meter (LC)	0.031	AQS Data Mart	Sunday	7576
29	093	9008	12/9/2024	Micrograms/cubic meter (LC)	0.042	AQS Data Mart	Monday	6941
29	093	9008	12/10/2024	Micrograms/cubic meter (LC)	0.016	AQS Data Mart	Tuesday	10961
29	093	9008	12/11/2024	Micrograms/cubic meter (LC)	0.011	AQS Data Mart	Wednesday	7365
29	093	9008	12/12/2024	Micrograms/cubic meter (LC)	0.041	AQS Data Mart	Thursday	6794
29	093	9008	12/15/2024	Micrograms/cubic meter (LC)	0.007	AQS Data Mart	Sunday	7576
29	093	9008	12/16/2024	Micrograms/cubic meter (LC)	0.006	AQS Data Mart	Monday	6941
29	093	9008	12/17/2024	Micrograms/cubic meter (LC)	0.014	AQS Data Mart	Tuesday	10961
29	093	9008	12/18/2024	Micrograms/cubic meter (LC)	0.008	AQS Data Mart	Wednesday	7365
29	093	9008	12/19/2024	Micrograms/cubic meter (LC)	0.132	AQS Data Mart	Thursday	6794
29	093	9008	12/22/2024	Micrograms/cubic meter (LC)	0.008	AQS Data Mart	Sunday	7576
29	093	9008	12/23/2024	Micrograms/cubic meter (LC)	0.004	AQS Data Mart	Monday	6941
29	093	9008	12/24/2024	Micrograms/cubic meter (LC)	0.004	AQS Data Mart	Tuesday	10961
29	093	9008	12/25/2024	Micrograms/cubic meter (LC)	0.003	AQS Data Mart	Wednesday	7365
29	093	9008	12/26/2024	Micrograms/cubic meter (LC)	0.006	AQS Data Mart	Thursday	6794
Void			12/29/2024				Sunday	7576
29	093	9008	12/30/2024	Micrograms/cubic meter (LC)	0.052	AQS Data Mart	Monday	6941
29	093	9008	12/31/2024	Micrograms/cubic meter (LC)	0.003	AQS Data Mart	Tuesday	10961

Appendix 2

Appendix 3: Comments on Proposed 2026 Monitoring Network Plan, Responses to Comments, and Corrections

From: Laura Earl
Sent: Friday, May 29, 2026 2:02 PM
To: cleanair <cleanair@dnr.mo.gov>
Subject: Comment on air monitoring network plan

To Whom It May Concern,

I appreciate the Missouri Department of Natural Resources' continued efforts to maintain and improve the state air monitoring network and to comply with federal Clean Air Act requirements. It is encouraging to see continued attention given to air quality monitoring, data quality, and modernization of the monitoring network. Strong monitoring systems are essential to protecting public health and ensuring communities have confidence that environmental conditions are being accurately measured.

At the same time, I urge the Department to recognize that many residents living near industrial waste handling and composting operations continue to experience serious air quality concerns that may not be adequately captured by the current monitoring network.

I live within approximately one mile of Midwest Organics, which is described as a composting operation but functions in practice much more like an industrial waste handling and disposal site. Residents in the surrounding community regularly experience severe odors, airborne particulates, and health symptoms including headaches, respiratory irritation, nausea, and difficulty spending time outdoors. These impacts appear episodic and highly dependent on wind and weather conditions, which means they may not be reflected in regional monitoring data or infrequent sampling methods.

While the draft plan demonstrates that Missouri's monitoring network may satisfy minimum federal requirements, I am concerned that it does not adequately address localized neighborhood-level exposure near industrial facilities such as composting operations, waste transfer facilities, and biosolids handling sites. Compliance with minimum requirements should not be viewed as the endpoint when residents continue to report persistent air quality problems.

I strongly support any portions of the draft plan that increase monitoring rigor, improve data quality, modernize equipment, or strengthen public transparency. Those are important steps in the right direction. However, additional measures are still needed to protect communities like mine.

I respectfully request that Missouri DNR consider the following additional monitoring

and public health protections:

1. Expanded Fence-Line Monitoring
   Install continuous fence-line monitoring near industrial composting and waste handling operations to better capture localized emissions impacting nearby neighborhoods.
2. Continuous PM2.5 and PM10 Monitoring
   Fine particulate matter can significantly affect respiratory health and quality of life. Continuous monitoring would provide far more useful public health data than intermittent or regional measurements.
3. VOC, Ammonia, and Hydrogen Sulfide Monitoring
   Odor complaints are often dismissed as merely a nuisance, but the compounds causing those odors may also pose health risks. Continuous or semi-continuous monitoring for volatile organic compounds (VOCs), ammonia, and hydrogen sulfide should be expanded near facilities generating repeated complaints.
4. Real-Time Public Data Access
   Residents should have access to real-time online monitoring dashboards so communities can understand pollution conditions as they occur rather than weeks or months later.
5. Mobile Monitoring During Complaint Events
   Mobile monitoring units should be deployed in response to repeated odor complaints or during weather inversion events when pollution may become concentrated near neighborhoods.
6. Monitoring for Bioaerosols and Organic Dust
   Industrial composting and waste sites may release fungal spores, endotoxins, bacteria, and organic dust that are not routinely monitored under current systems but may still affect public health.
7. Greater Environmental Justice Consideration
   Communities impacted by industrial operations deserve more than minimum compliance standards. The monitoring network should better account for cumulative impacts and disproportionate burdens experienced by residents living near industrial activity.
8. Use of Modern Computerized Monitoring Technologies
   The state should invest in newer continuous computerized monitoring technologies capable of identifying short-duration pollution spikes, odor events, and changing conditions in real time. Intermittent sampling methods may fail to capture the actual conditions residents experience.

Air monitoring networks should reflect not only statewide averages, but also the lived reality of the people breathing the air every day. Communities should not have to prove

they are being harmed while lacking the very monitoring infrastructure needed to document the problem.

I appreciate the Department's work and the opportunity to provide comments. I encourage Missouri DNR to continue strengthening the monitoring network and to prioritize localized monitoring near industrial waste and composting operations where residents continue to report ongoing air quality concerns.

Sincerely,

Laura Earl

Response to Laura Earl Comment(s)

Expanded Fence-Line Monitoring
Comment author states: *Install continuous fence-line monitoring near industrial composting and waste handling operations to better capture localized emissions impacting nearby neighborhoods.*

The purpose of the Annual Monitoring Network Plan is to fulfill the obligation under 40 CFR Part 58.10(a), requiring the department to assess and demonstrate that its ambient air monitoring network meets the applicable monitoring requirements of 40 CFR Part 58, and to identify any proposed network changes. The primary purpose of the monitoring network is to determine whether areas in Missouri are meeting National Ambient Air Quality Standards (NAAQS). The Clean Air Act (CAA) requires the U.S. Environmental Protection Agency (EPA) to establish NAAQS for designated Criteria Pollutants and the states to adopt enforceable plans to achieve those standards.
The air monitoring network is for, and must serve, the entire state of Missouri. All monitors in the Missouri air monitoring network, including those operated by the state and industries under state review, meet regulatory and statutory requirements.

Continuous $PM_{2.5}$ and PM_{10} monitoring
Comment author states: *Fine particulate matter can significantly affect respiratory health and quality of life. Continuous monitoring would provide far more useful public health data than intermittent or regional measurements.*
The department recognizes continuous monitoring data can be useful for the public because the information allows citizens to make decisions about their health with near-real time information. The vast majority of the department's $PM_{2.5}$ and PM_{10} monitoring network is continuous.

VOC, Ammonia, and Hydrogen Sulfide Monitoring
Comment author states: *Odor complaints are often dismissed as merely a nuisance, but the compounds causing those odors may also pose health risks. Continuous or semi-continuous monitoring for volatile organic compounds (VOCs), ammonia, and hydrogen sulfide should be expanded near facilities generating repeated complaints.*
State regulation 10 CSR 10-6.165, *Restriction of Emission of Odors*, restricts the emission of excessive odorous matter. Individuals concerned about odors are encouraged to submit a concern report using the information on the department's website: https://dnr.mo.gov/reporting/environmental-concern.

The department does not have equipment capable of providing continuous or semi-continuous monitoring for these pollutants in ambient concentration ranges.

Real-Time Public Data Access

Comment author states: *Residents should have access to real-time online monitoring dashboards so communities can understand pollution conditions as they occur rather than weeks or months later.*
Most of the department's ambient air monitoring is continuous and is available in near real-time on the department's website. The ambient air monitoring data on the department's website typically updated hourly. Information on a pollutant-by-pollutant basis may be found here:

https://dnr.mo.gov/air/hows-air/pollutants-sources. A more detailed report for all sites that report in near real-time on the department's website may be found here: https://dnrservices.mo.gov/env/esp/aqm/docs/Allrep.PDF.

Mobile Monitoring During Complaint Events

Comment author states: *Mobile monitoring units should be deployed in response to repeated odor complaints or during weather inversion events when pollution may become concentrated near neighborhoods.*

Department staff typically respond to odor concerns by sending an inspector equipped with a nasal ranger to verify compliance with State regulation 10 CSR 10-6.165, *Restriction of Emission of Odors*. The department does not possess a mobile monitoring unit capable of speciating volatile organic compounds that may be contributing to an odor event.

Monitoring for Bioaerosols and Organic Dust

Comment author states: *Industrial composting and waste sites may release fungal spores, endotoxins, bacteria, and organic dust that are not routinely monitored under current systems but may still affect public health.*

The department does not have equipment capable of quantifying airborne fungal spores, endotoxins, bacteria, or organic dust. Additionally, the department does not have regulatory authority over airborne fungal spores, endotoxins, or bacteria.

Greater Environmental Justice Consideration

Comment author states: *Communities impacted by industrial operations deserve more than minimum compliance standards. The monitoring network should better account for cumulative impacts and disproportionate burdens experienced by residents living near industrial activity.*

The purpose of the Annual Monitoring Network Plan is to fulfill the obligation under 40 CFR Part 58.10(a), requiring the department to assess and demonstrate that its ambient air monitoring network meets the applicable monitoring requirements of 40 CFR Part 58, and to identify any proposed network changes. The primary purpose of the monitoring network is to determine whether areas in Missouri are meeting National Ambient Air Quality Standards (NAAQS). The Clean Air Act (CAA) requires the U.S. Environmental Protection Agency (EPA) to establish NAAQS for designated Criteria Pollutants and the states to adopt enforceable plans to achieve those standards.
The air monitoring network is for, and must serve, the entire state of Missouri. All monitors in the Missouri air monitoring network, including those operated by the state and industries under state review, meet regulatory and statutory requirements.

Use of Modern Computerized Monitoring Technologies

Comment author states: *The state should invest in newer continuous computerized monitoring technologies capable of identifying short-duration pollution spikes, odor events, and changing conditions in real time. Intermittent sampling methods may fail to capture the actual conditions residents experience.*

Most of the department's ambient air monitoring is continuous and is available in near real-time on the department's website. The ambient air monitoring data on the department's website typically updated hourly. Information on a pollutant-by-pollutant basis may be found here: https://dnr.mo.gov/air/hows-air/pollutants-sources. A more detailed report for all sites that report in near real-time on the department's website may be found here: https://dnrservices.mo.gov/env/esp/aqm/docs/Allrep.PDF.

The department did not update the monitoring network plan as a result of these comments.

Sent: Wednesday, June 24, 2026 2:14 PM
To: cleanair <cleanair@dnr.mo.gov>
Cc: Montgomery, Mike
Subject: The Doe Run Company - BRRF Public Comment on 2026 Monitoring Network Plan

In light of EPA's determination that the data from the Buick NE and Doe Run Buick – Buick NE monitors should be combined, The Doe Run Buick Resource Recycling Facility respectfully requests the following changes be made to the draft 2026 Monitoring Network Plan. Ambient lead data in Table 3 should be combined, per EPA, confirming that the site data demonstrates attainment with the 2008 Lead NAAQS. Updates to language on pages 4 and 13 should reflect these changes and describe that the monitoring results demonstrate attainment with the 2008 Lead NAAQS. We also ask that the most recent letter from EPA, approving the requested waiver from the distance requirements, be included in this plan.

Bryan Kemnitzer
EHS Manager | Buick Resource Recycling Facility
18594 State Hwy KK | Boss, MO 65440

Response to The Doe Run Company (Doe Run) Comment(s)

Comment author suggests the monitoring network plan be modified to reflect the design value at the Missouri Department of Natural Resources' Buick Northeast site (AQS ID 29-093-0034) after Doe Run's Buick Northeast site (AQS ID 29-093-9008) data is combined with the department's data.

Doe Run and the department have independently monitored for lead at the same Buick Northeast location for many years. In 2024 (and currently), Doe Run sampled on a daily frequency and the department sampled on a 1-in-6 day frequency.

The 2008 lead National Ambient Air Quality Standard (NAAQS) is 0.15 $\mu g/m^3$ not to be exceeded in any 3-month period. The design value is the maximum rolling 3-month lead-TSP average over a 3-year period.

The department's Buick Northeast site data indicated a violation of the 2008 lead National Ambient Air Quality Standard (NAAQS) with an August 2024 – October 2024 3-month average of 0.21 $\mu g/m^3$. During the same timeframe, Doe Run's Buick Northeast site data did not indicate a violation. Doe Run had ninety-one valid samples during this period and the department had fourteen valid samples. The additional data points from the Doe Run monitor resulted in a lower three-month rolling averages that were compliant with the lead NAAQS.

In March 2025, the department emailed the United States Environmental Protection Agency (EPA) about how to manage the issue. USEPA responded noting that the data between the two sites could be combined if the samplers met the collocation criteria specified in 40 CFR Part 58. The department measured the distance between the samplers and found that five of the seven Doe Run operated samplers at the site met the collocation requirement.

In March 2026, the department submitted a waiver request to EPA for the two Doe Run operated monitors that did not meet the required collocation distances in 40 CFR Part 58. EPA approved the waiver request on June 17, 2026.

The department had been working towards combining Doe Run's Buick Northeast data with the department's Buick Northeast data, but this work was incomplete when the 2026 monitoring network plan was posted for public notice on May 28, 2026. None of the combined data had been certified. Since that time, the department finished the data combination for 2024 and 2025 and submitted certification information to EPA. The combined data includes data from all seven of Doe Run's samplers. The department is awaiting EPA's concurrence.

The 0.21 $\mu g/m^3$ design value the department's Buick Northeast site (AQS ID 29-093-0034) is reflective of the data that has been certified by the department and concurred by EPA to date. The department anticipates EPA's concurrence would result in the Buick Northeast site data demonstrating compliance with the 2008 lead NAAQS and if that occurs, the 2027 monitoring network plan would reflect that change in design value. The department did not update the monitoring network plan as a result of this comment.

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June 26, 2026

Missouri Department of Natural Resources
Air Pollution Control Program
Air Quality Analysis Section/Air Monitoring Unit
P. O. Box 176
Jefferson City, MO 65102-0176

Re: Missouri Department of Natural Resources Air Pollution Control Program 2026 Monitoring Network Plan, May 28, 2026

To Whom It May Concern:

On May 27, 2026, the Missouri Department of Natural Resources (DNR) published a public notice seeking comments on its 2026 Monitoring Network Plan (Plan). The comment deadline is June 27, 2026.

The Midwest Ozone Group ("MOG")[1] is pleased to provide comments[2] in support of the proposed Plan. MOG is an affiliation of companies and associations that draws upon its collective resources to seek solutions to the development of legally and technically sound air quality programs that may impact on their facilities, their employees, their communities, their contractors, and the consumers of their products. MOG's primary efforts are to work with policy makers in evaluating air quality policies by encouraging the use of sound science.

MOG has been actively engaged in a variety of issues and initiatives related to the development and implementation of air quality policy, including the development of transport rules (including exceptional events demonstrations, implementation of NAAQS standards, nonattainment designations, petitions under Sections 126, 176A and 184(c) of the Clean Air Act ("CAA"), NAAQS implementation guidance, the development of Good Neighbor State

[1] The members of the Midwest Ozone Group include: Ameren, American Electric Power, American Forest & Paper Association, American Iron and Steel Institute, American Wood Council, Appalachian Region Independent Power Producers Association, Associated Electric Cooperative, Berkshire Hathaway Energy, Big Rivers Electric Corp., Citizens Energy Group, City Water, Light & Power (Springfield IL), Cleveland Cliffs Inc., Council of Industrial Boiler Owners, East Kentucky Power Cooperative, ExxonMobil, Hoosier Energy REC, Inc., Indiana Energy Association, Indiana-Kentucky Electric Corporation, Indiana Municipal Power Agency, LGE/ KU, Marathon Petroleum Company, Monongahela Power Company, National Lime Association, North American Stainless, Nucor Corporation, Ohio Utility Group, Ohio Valley Electric Corporation, Olympus Power, Steel Manufacturers Association, and Wabash Valley Power Alliance.

[2] These comments were prepared with the technical assistance of Alpine Geophysics, LLC.

Implementation Plans ("SIPs"), the development of greenhouse gas and Mercury and Air Toxics Standards Rules and related regional haze issues. MOG Members and Participants own and operate numerous stationary sources that are affected by air quality requirements including the ozone NAAQS.

Details of the Plan

The Summary of Proposed Changes at page 4 states that "[t]he department plans to place a 1405-F PM2.5 monitor at the Mark Twain State Park monitoring site for background $PM_{2.5}$ levels for permit modeling projects and regional episode analyses. The monitor will be classified as a special purpose monitor. If approved, the 1405-F will be discontinued at Branch St. to use at Mark Twain State Park."

MOG notes that, despite identifying a change to the $PM_{2.5}$ network in the Plan Summary at page 4, DNR states that it "…is not proposing any changes to the $PM_{2.5}$ monitoring network other than to continue to replace aging equipment" at page 22. MOG requests that DNR clarify the apparent inconsistency between the statement in the plan Summary articulating changes at Mark Twain and Branch St locations and the statement at page 22 that DNR is not proposing any changes to the $PM_{2.5}$ monitoring network other than to continue to replace aging equipment.

MOG Supports the Relocation of one PM2.5 Monitor

Consistent with the goal of MOG to seek solutions to the development of legally and technically sound air quality programs and encourage the use of sound science by policy makers in evaluating air quality policies, MOG supports the proposed Plan revision to relocate the Branch St. Thermo Scientific 1405-F $PM_{2.5}$ monitor to the Mark Twain State Park monitoring site for help determining background $PM_{2.5}$ levels for permit modeling projects and regional episode analyses. MOG believes that the proposed referenced change to the $PM_{2.5}$ monitoring network will assist the state in the accurate assessment of air quality and supports this proposed change in the Plan.

Very truly yours,

Edward "Skipp" Kropp
Counsel
Midwest Ozone Group

Response to Midwest Ozone Group (MOG) Comment(s)

Comment author supports the proposed move of the 1405-F from Branch St. to Mark Twain State Park as described on page four of the monitoring network plan. Comment author notes conflicting language on page twenty-two in the monitoring network plan and requests clarification.

The Missouri Department of Natural Resources appreciates the comment supporting the move of the 1405-F from Branch St. to Mark Twain State Park.

Page twenty-two incorrectly states:
The department is not proposing any changes to the $PM_{2.5}$ monitoring network other than to continue to replace aging equipment.

The language on page four is accurate stating:

The department plans to place a 1405-F PM2.5 monitor at the Mark Twain State Park monitoring site for background PM2.5 levels for permit modeling projects and regional episode analyses. The monitor will be classified as a special purpose monitor. If approved ,the 1405-F will be discontinued at Branch St. to use at Mark Twain State Park.

The statement on page twenty-two has been removed from the plan.

Corrections in Final Version (Revision 1) of the 2026 Monitoring Network Plan

The department changed the language in Proposed Change 3 on page from:

The department will continue dialogue with EPA and Doe Run concerning the possibility of combining Lead (Pb) data sets at the Buick NE site. On March 25, 2026 the department sent a letter to the Regional Administrator asking for a Siting Criteria Waiver for two of Doe Run's Pb samplers that fall outside the collocation distance requirements set out in 40 CFR Part 58 Appendix A.3.4.4.2(b) to the MoDNR Primary monitor. The criteria waiver request can be found in Appendix 2 of this letter.

to

On March 25, 2026 the department sent a letter to the Regional Administrator asking for a Siting Criteria Waiver for two of Doe Run's Pb samplers that fall outside the collocation distance requirements set out in 40 CFR Part 58 Appendix A.3.4.4.2(b) to the MoDNR Primary monitor. The criteria waiver request can be found in Appendix 2 of this letter. EPA approved the waiver request on June 17, 2026. The department has since certified the combined 2024 and 2025 lead data and is awaiting EPA concurrence. The department will continue dialogue with EPA and Doe Run on how to manage future Lead (Pb) data combinations at the Buick NE site.

The change in language is a result of the waiver being approved since the posting of the monitoring network plan and the department submitting the certified combined 2024 and 2025 Buick NE Lead (Pb) data to EPA for concurrence.

The department removed the following sentence from page 22 of the plan in response to a comment from the Midwest Ozone Group *The department is not proposing any changes to the $PM_{2.5}$ monitoring network other than to continue to replace aging equipment.* The department also slightly modified the sentence that followed from *This plan, however, is contingent on EPA providing adequate grant funds to operate and maintain the $PM_{2.5}$ monitoring network.* to *This plan is contingent on EPA providing adequate grant funds to operate and maintain the $PM_{2.5}$ monitoring network.*

The department updated Table 1 on Page 9 as it was out of date. The newly issued Buick Northeast waiver was added, the Liberty and Mark Twain State Park waivers were removed because they are no longer needed, and the dates of the most recent waiver approval for El Dorado Springs and Blair St. were updated.

The department has made no other changes to the 2026 Monitoring Network Plan.